This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

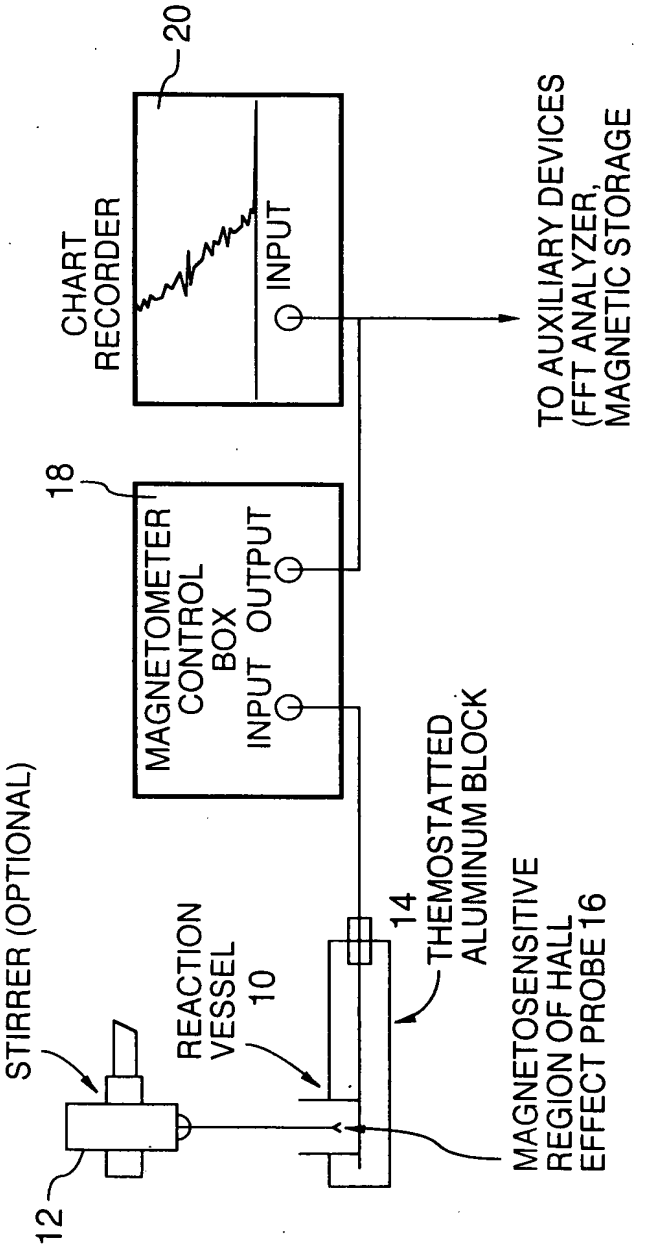
Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents *will not* correct images, please do not report the images to the Image Problem Mailbox.

OIPE JC139
JUL 08 2004
PATENT & TRADEMARK OFFICE



INSTRUMENTATION, BLOCK DIAGRAM

FIG.1A

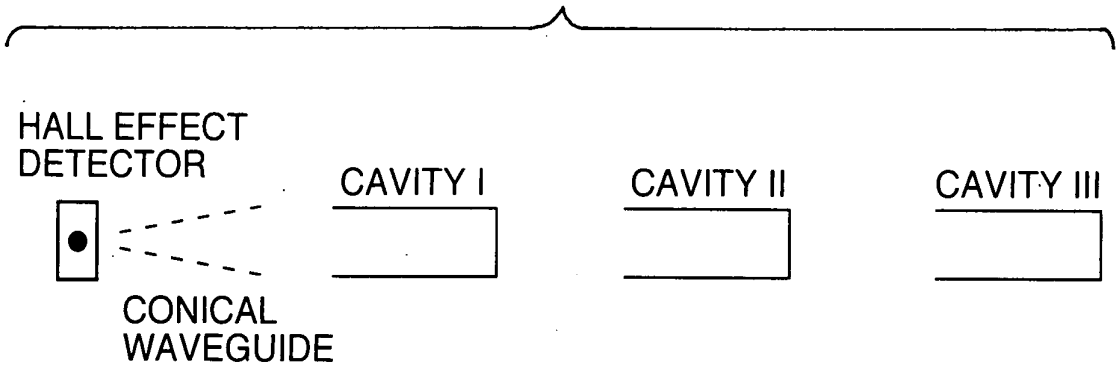

HALL EFFECT
DETECTOR
CAVITY I
CAVITY II
CAVITY III
CONICAL
WAVEGUIDE

FIG.1B

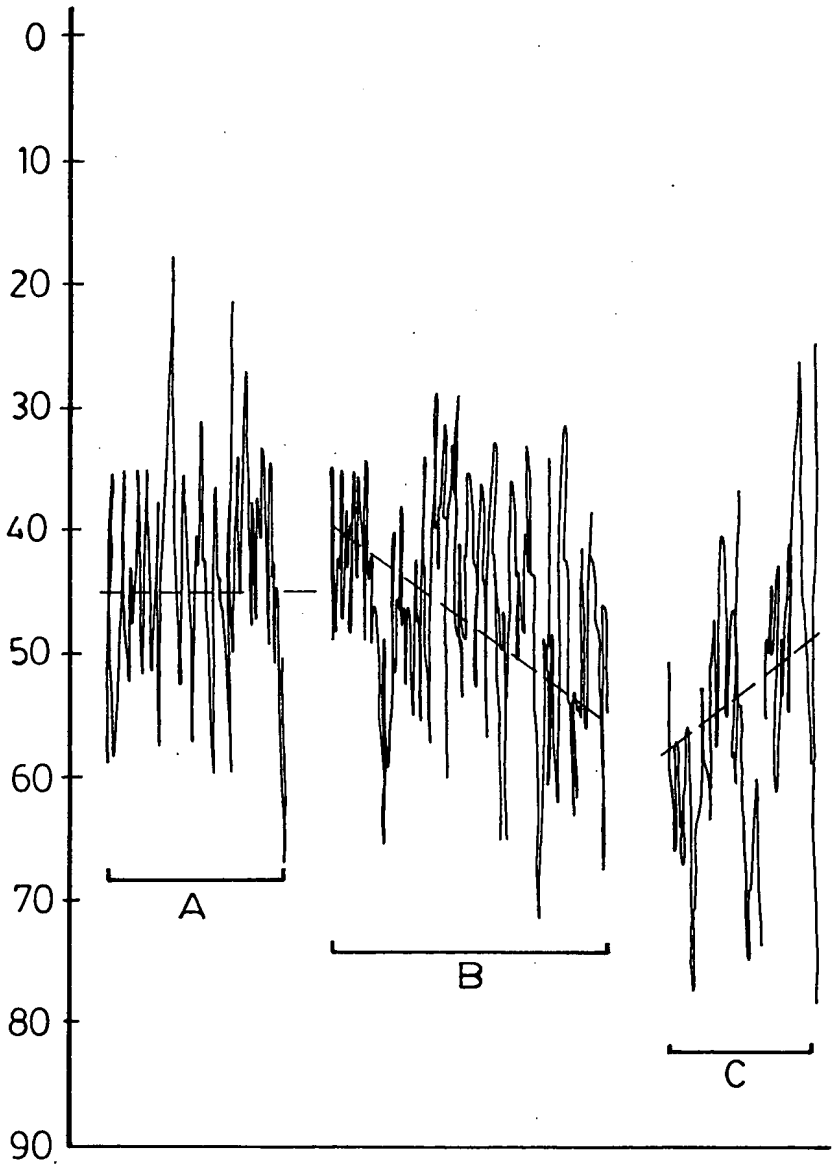


FIG. 1c

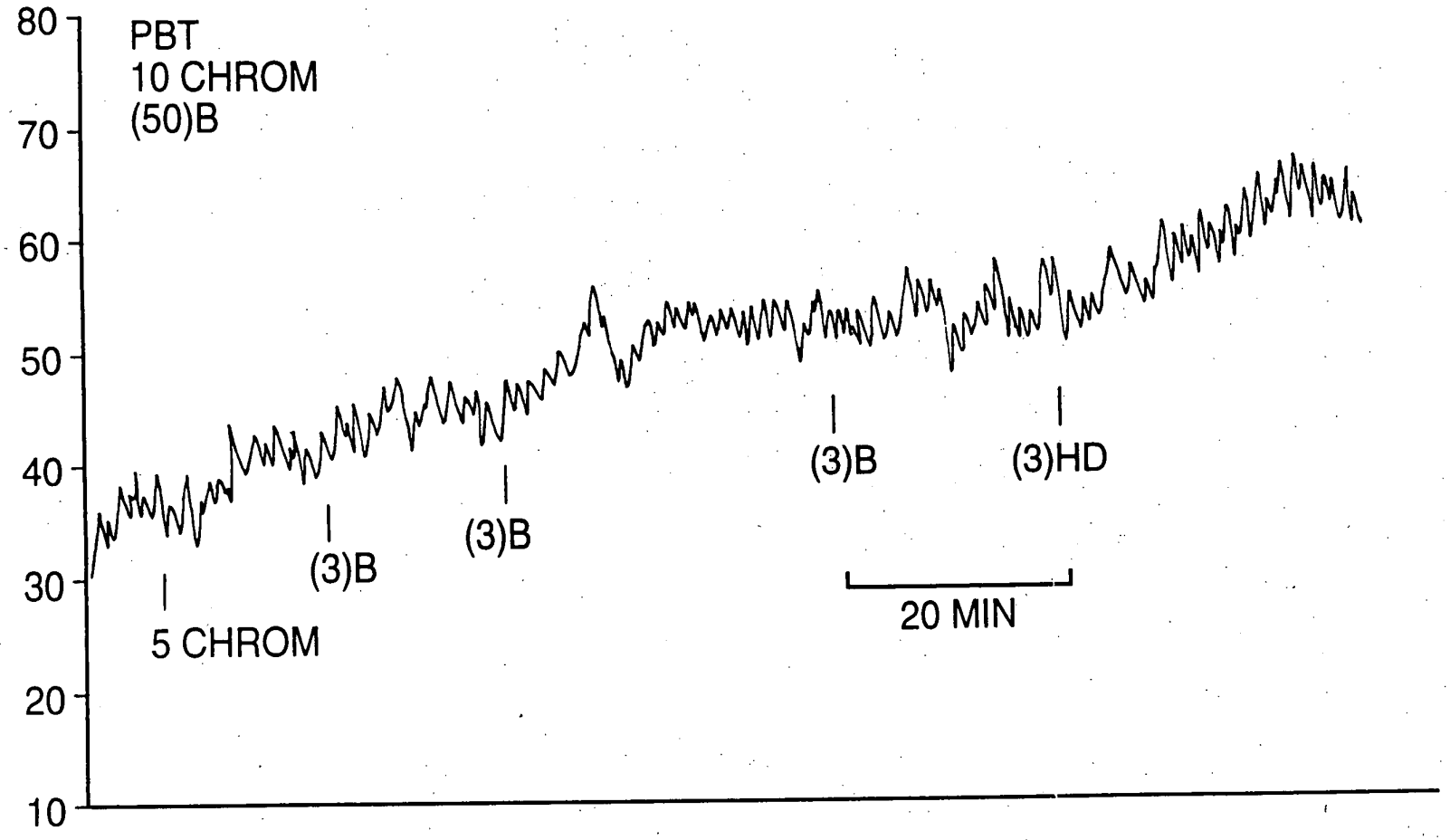


FIG.2.

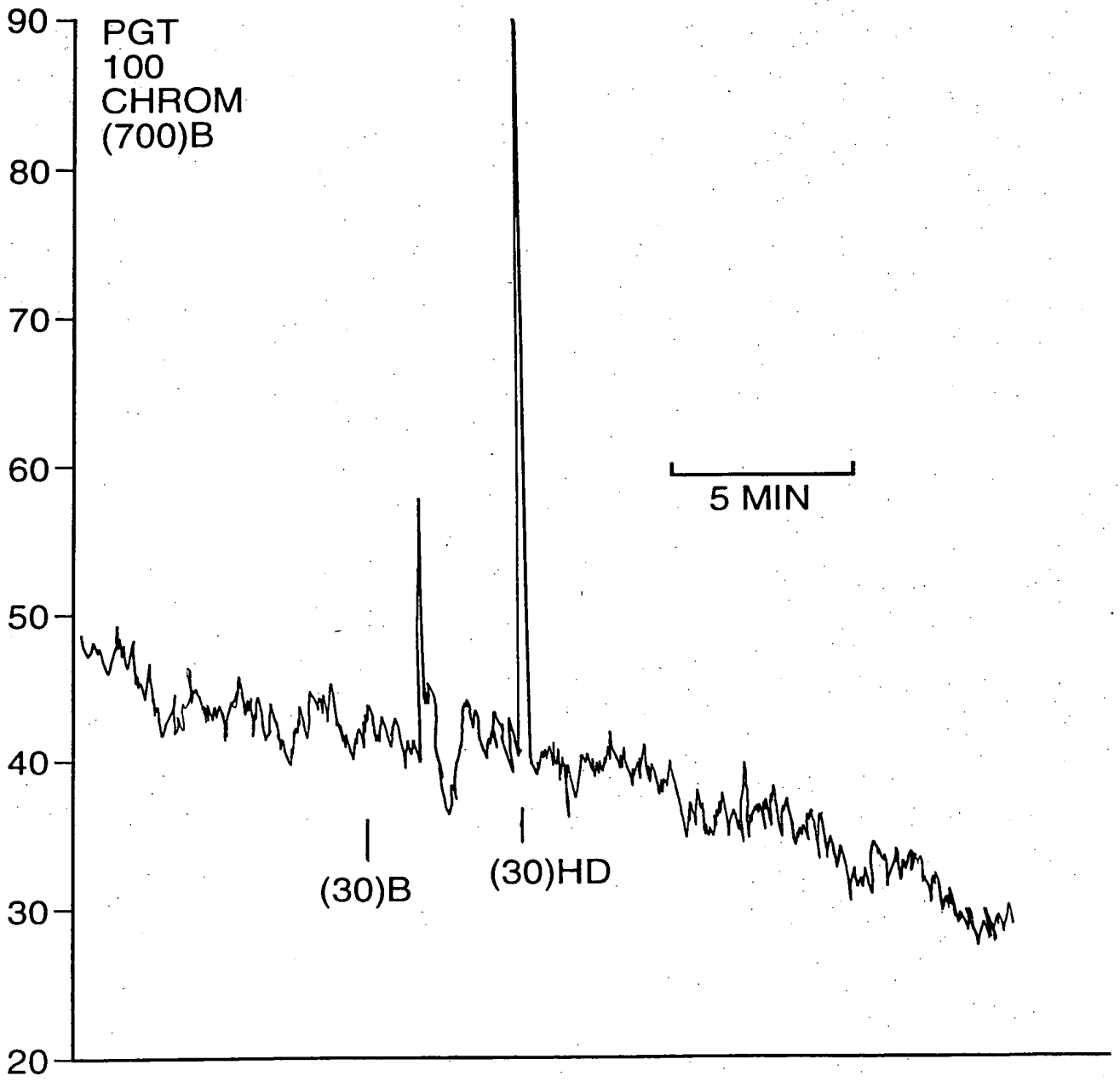


FIG.3.

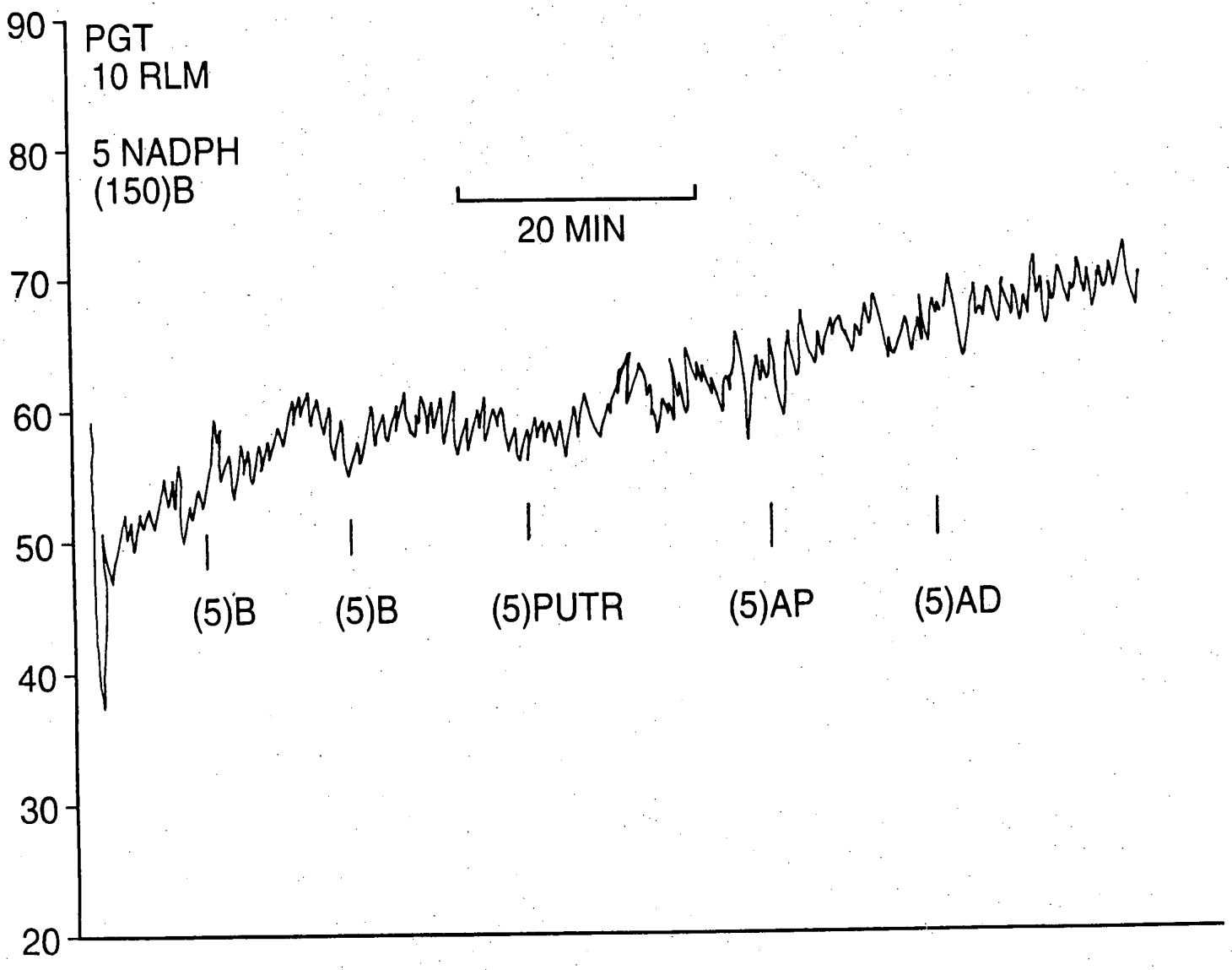

90
80
70
60
50
40
30
20
PGT
10 RLM
5 NADPH
(150)B
20 MIN
(5)B
(5)B
(5)PUTR
(5)AP
(5)AD

FIG.4.

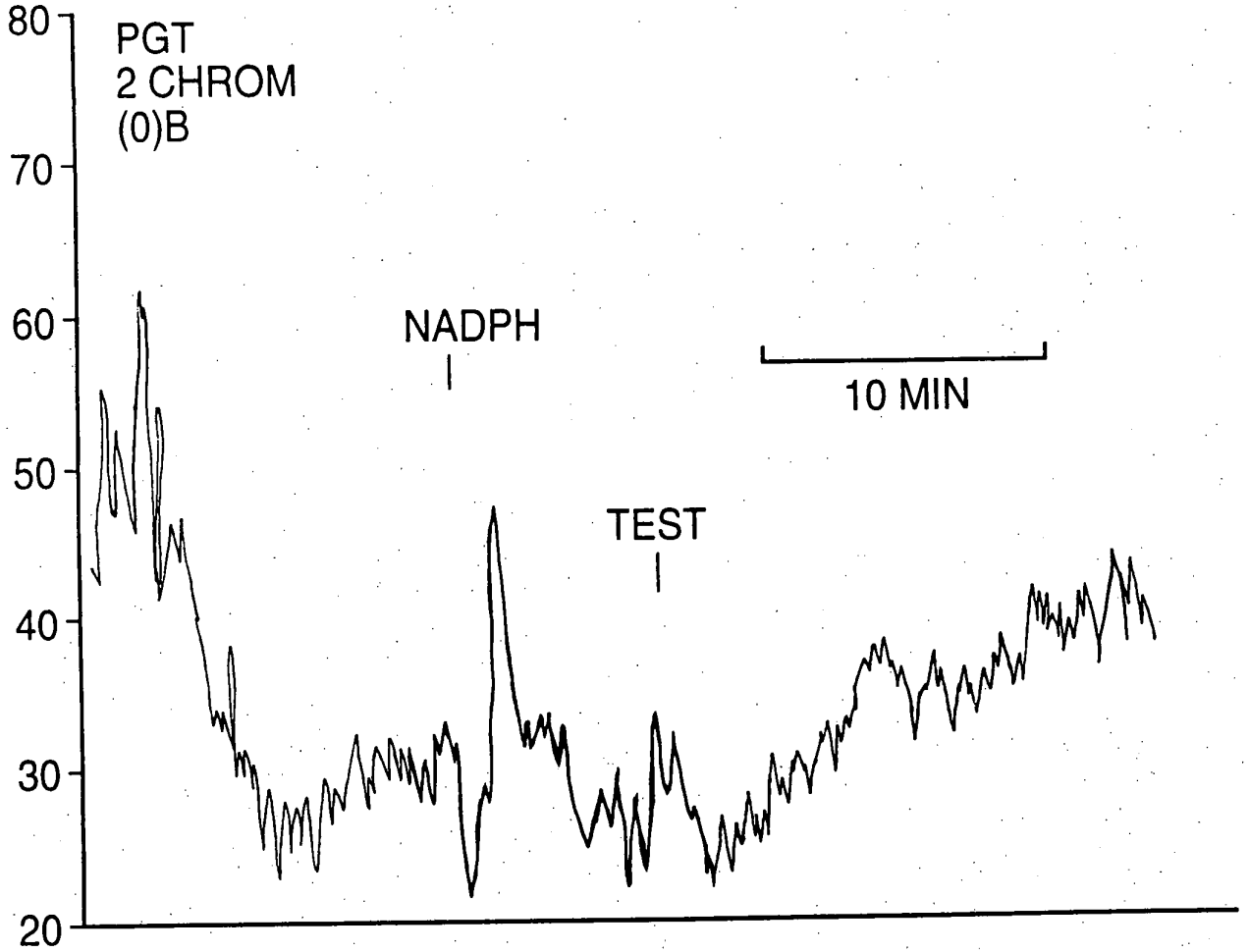


FIG.5.

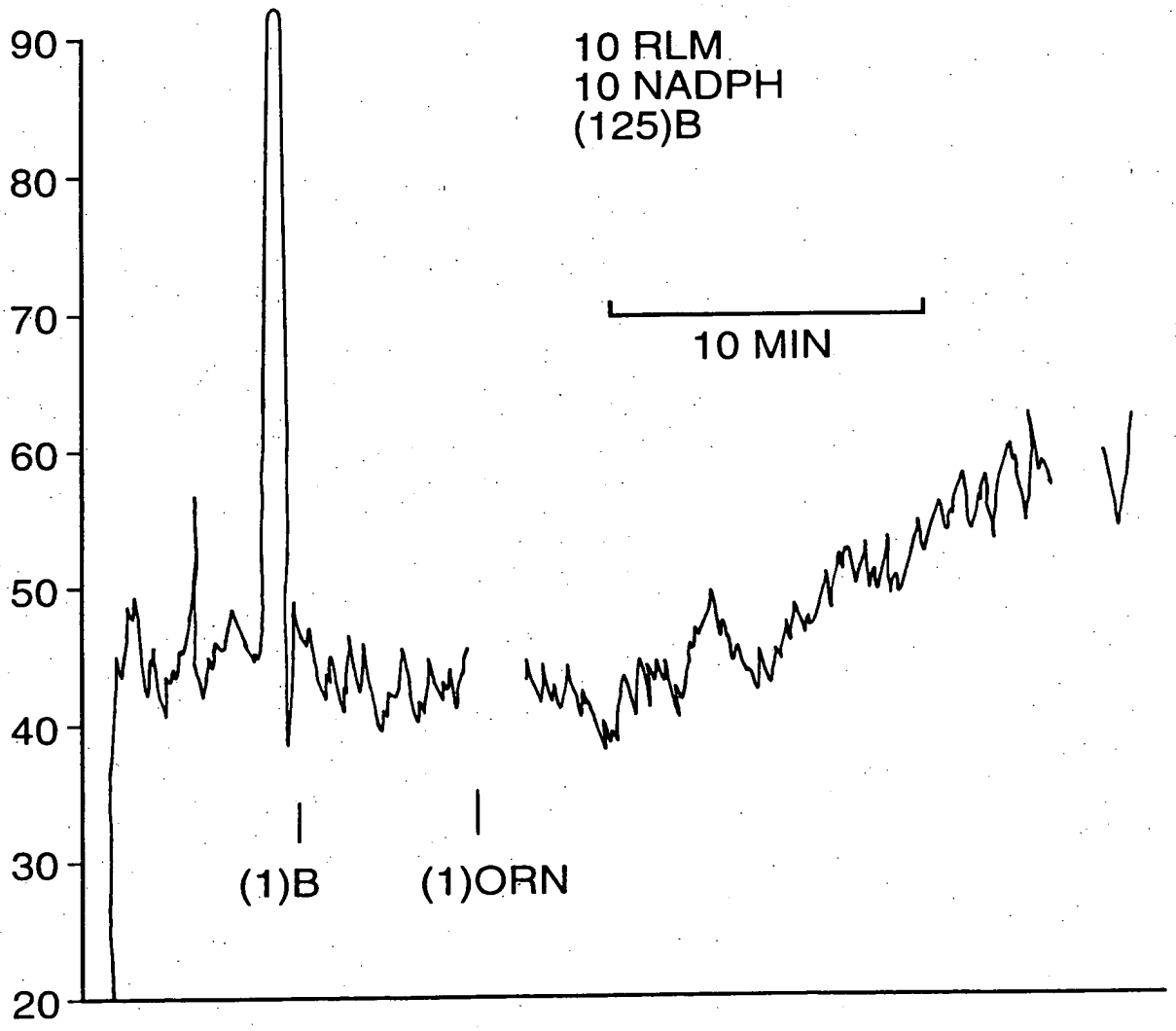


FIG.6.

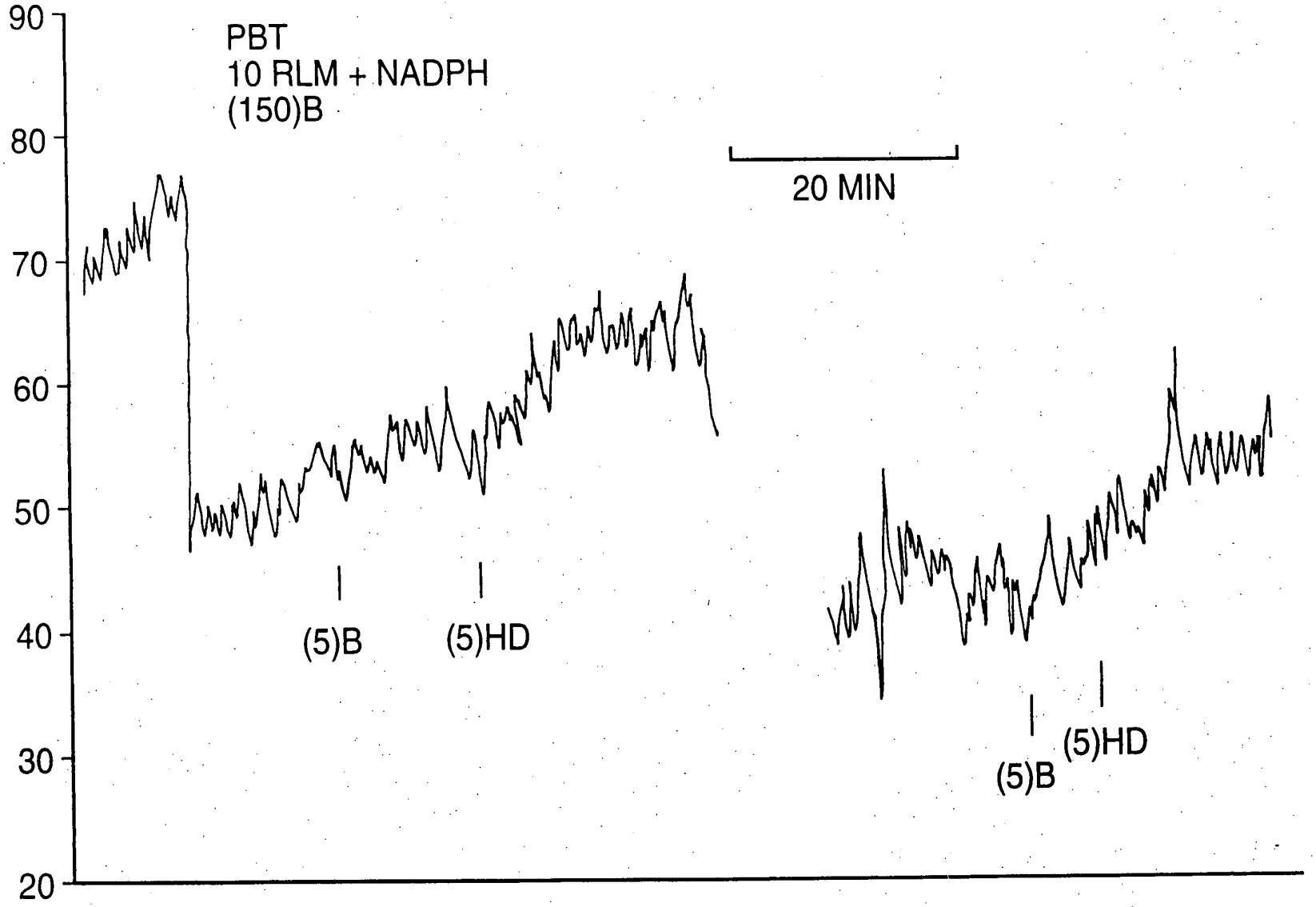


FIG.7.

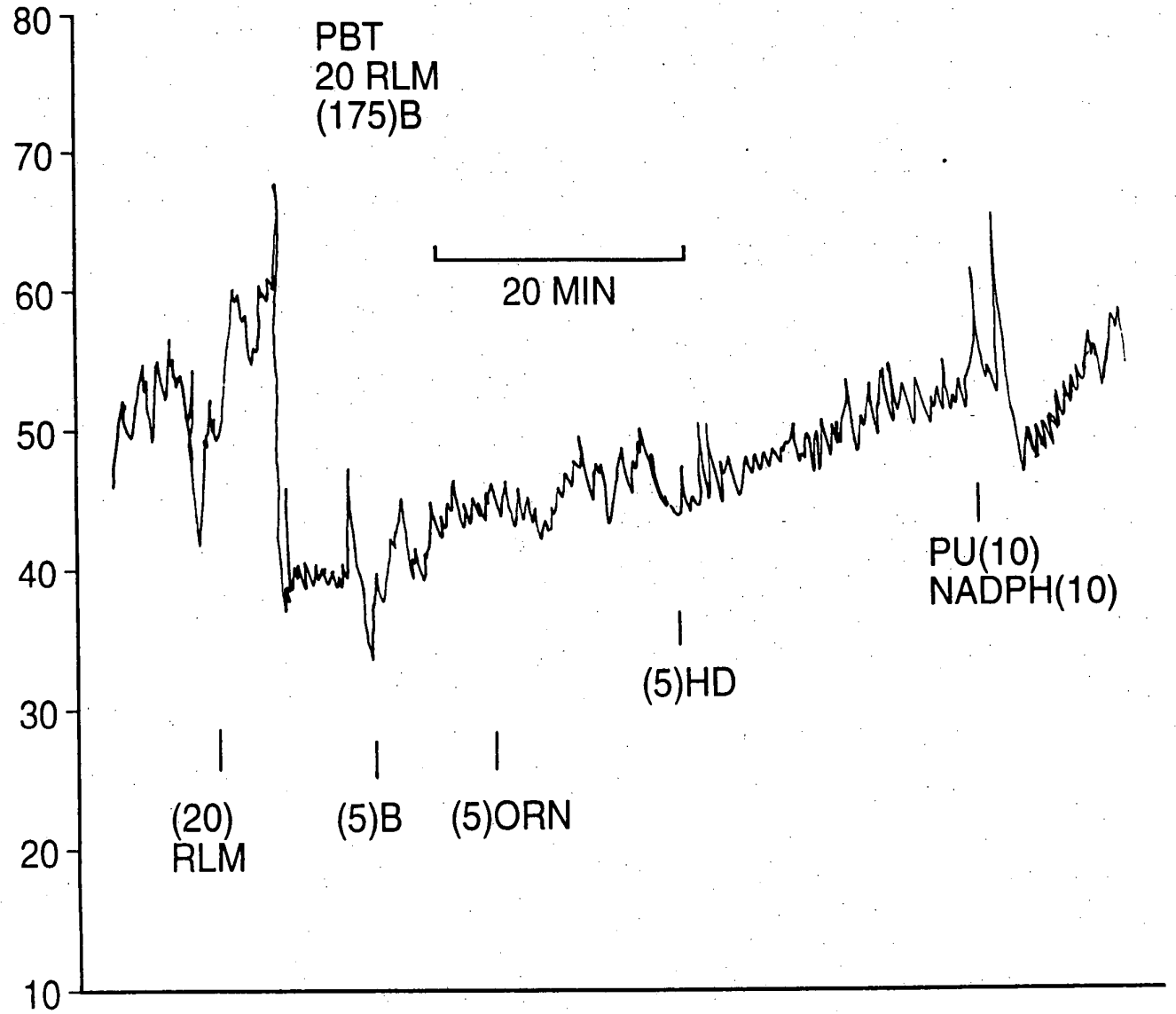

80
70
60
50
40
30
20
10
PBT
20 RLM
(175)B
20 MIN
PU(10)
NADPH(10)
(5)HD
(20)
RLM
(5)B
(5)ORN

FIG.8.

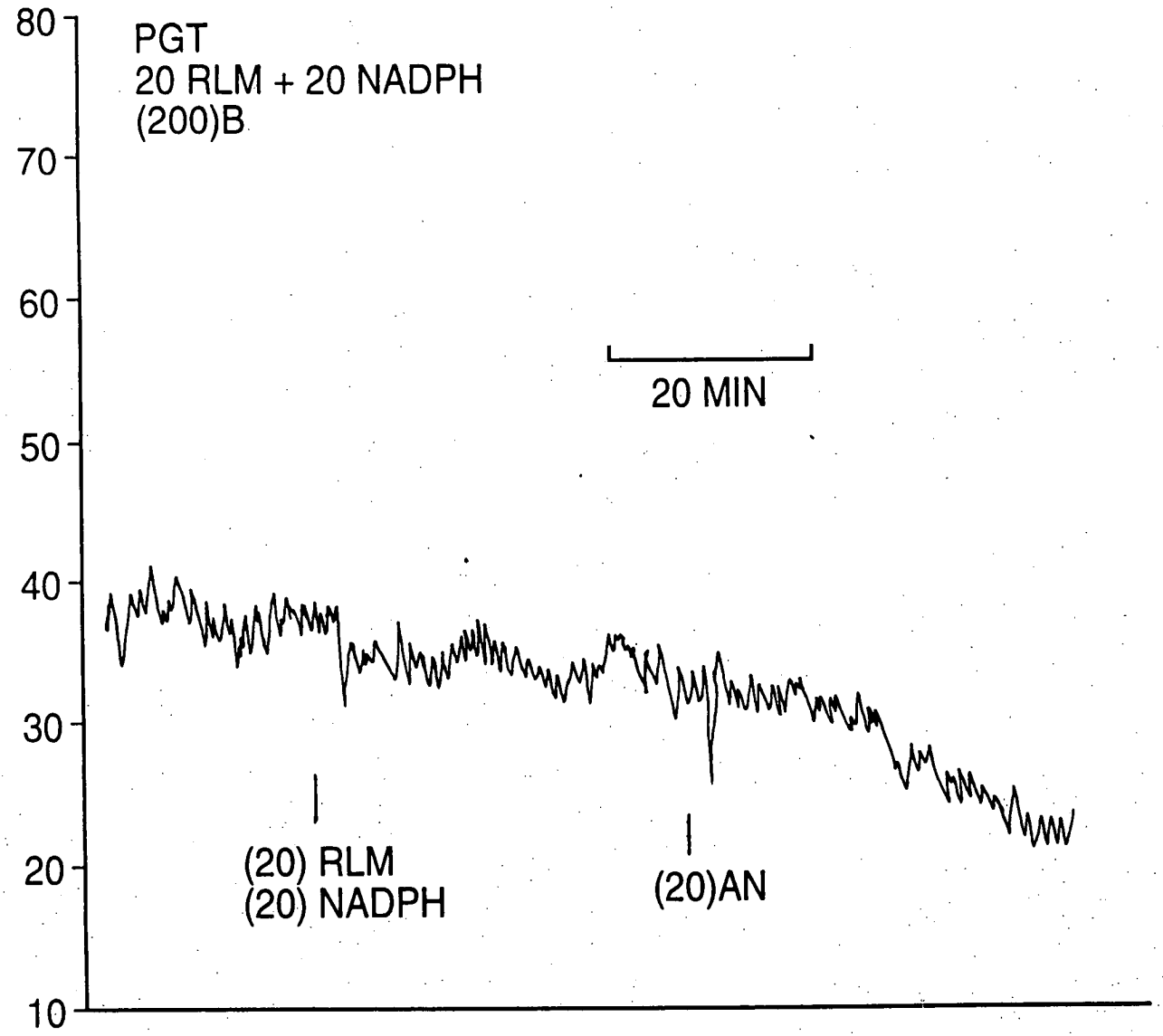

80
70
60
50
40
30
20
10
PGT
20 RLM + 20 NADPH
(200)B
20 MIN
(20) RLM
(20) NADPH
(20)AN

FIG.9.

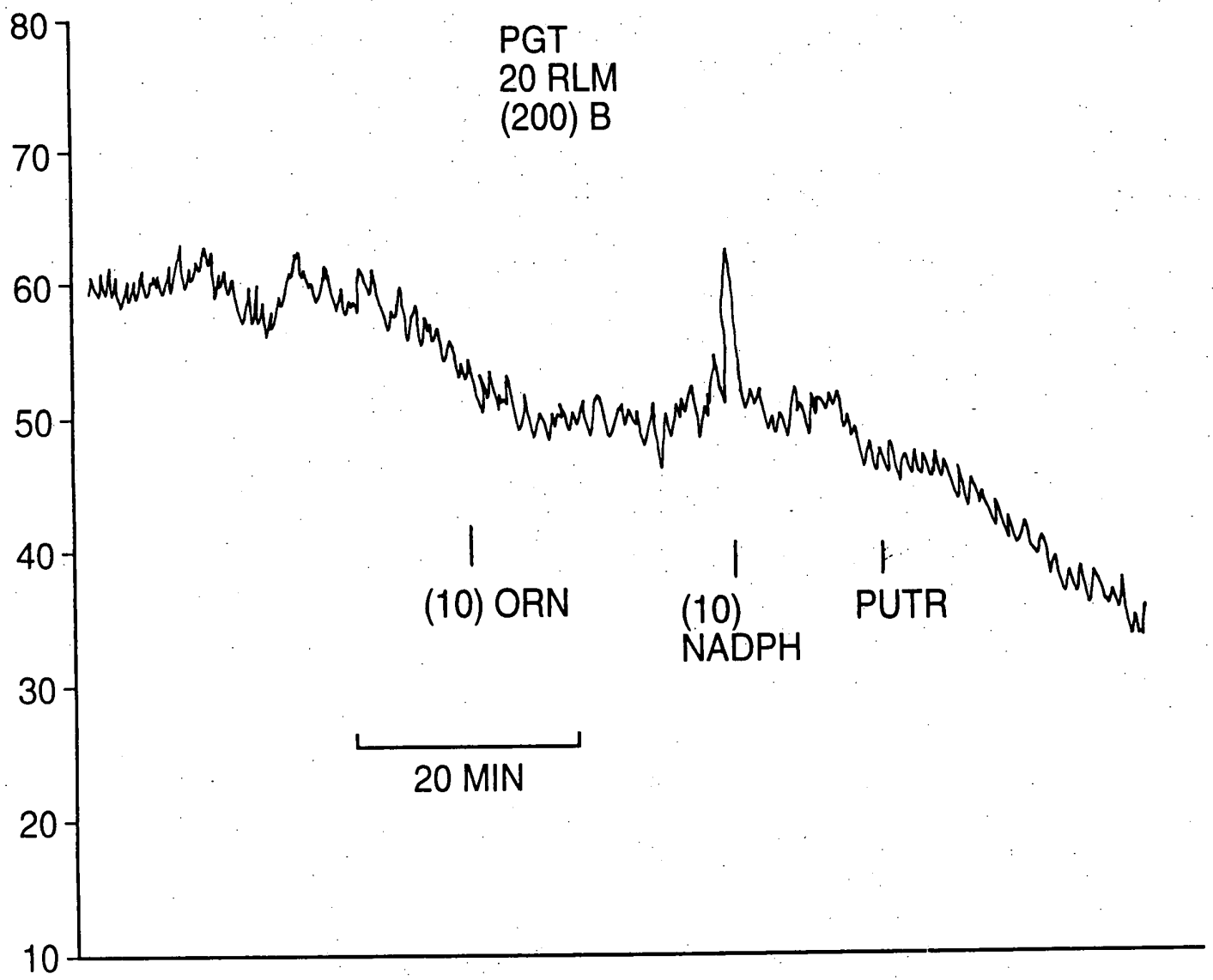


FIG.10.

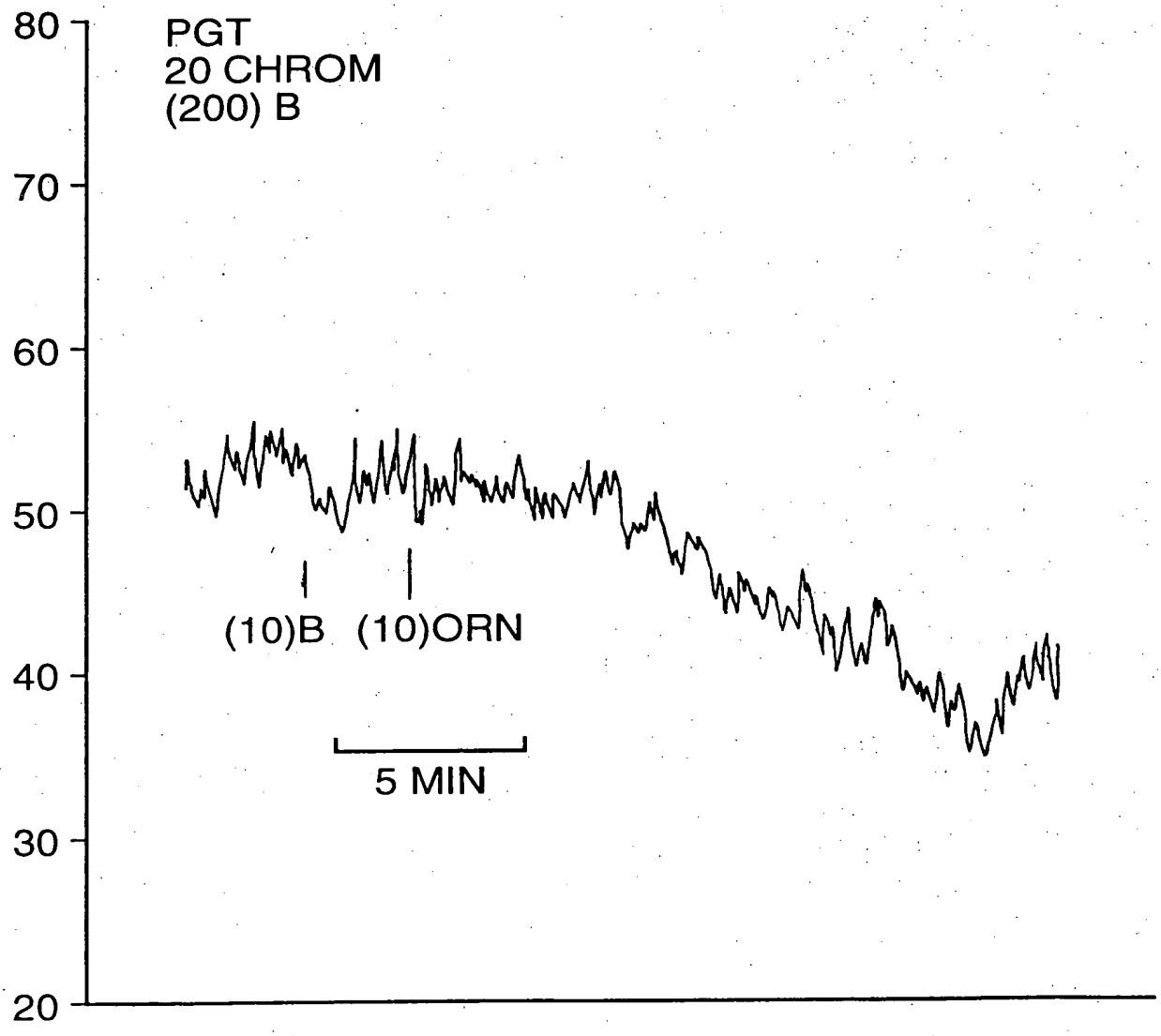


FIG.11.

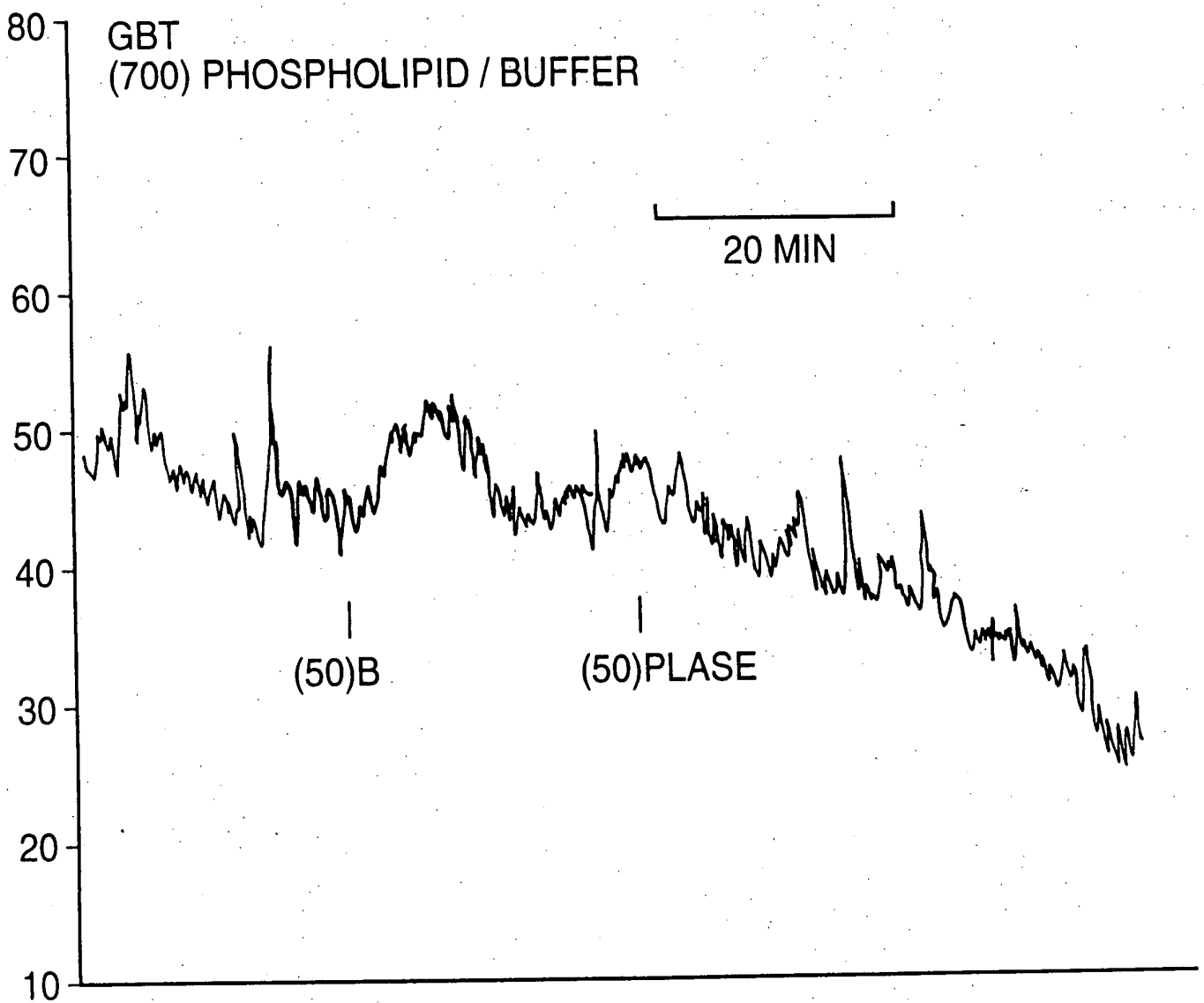

80
70
60
50
40
30
20
10
GBT
(700) PHOSPHOLIPID / BUFFER
20 MIN
(50)B
(50)PLASE

FIG.12.

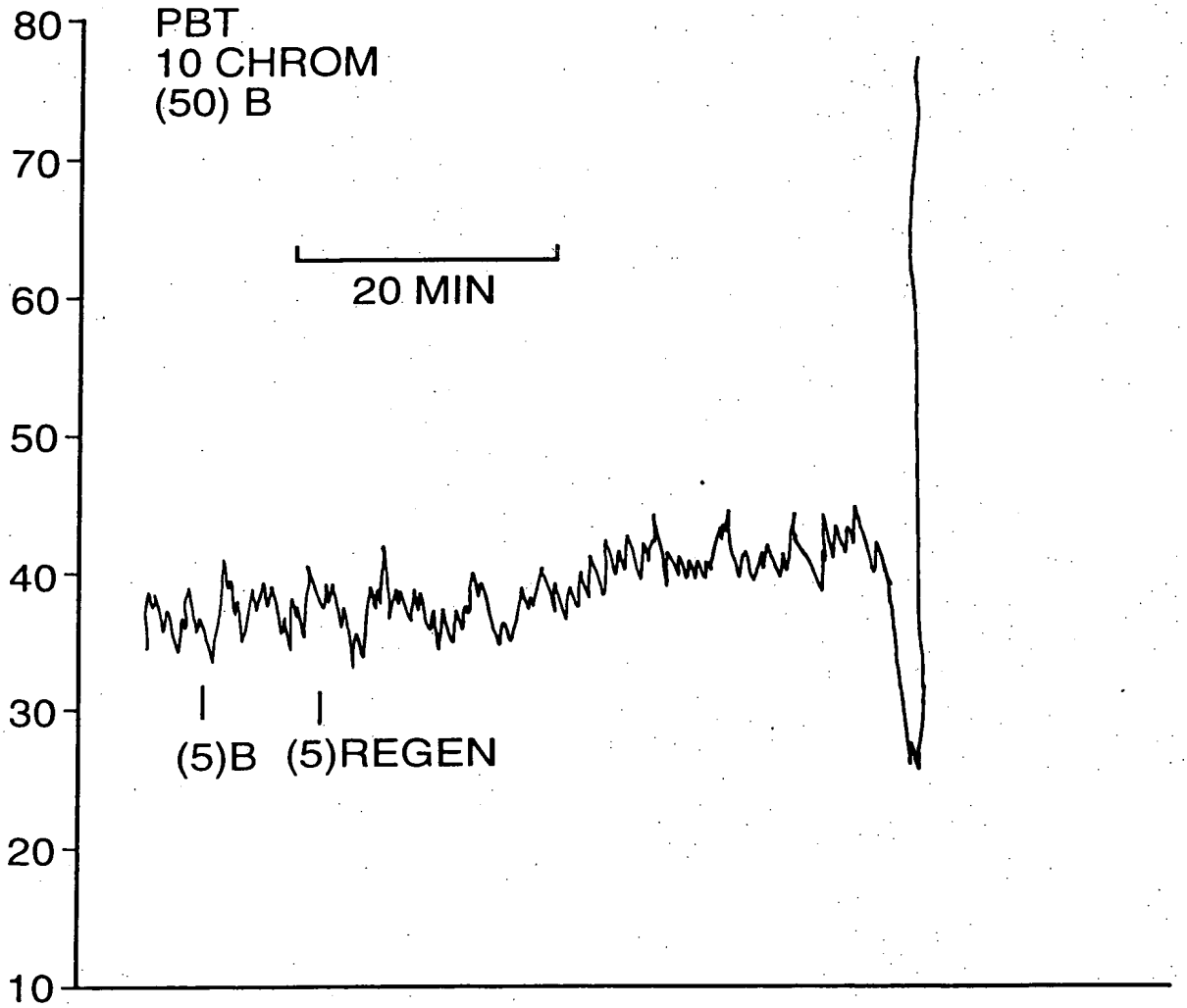


FIG.13.

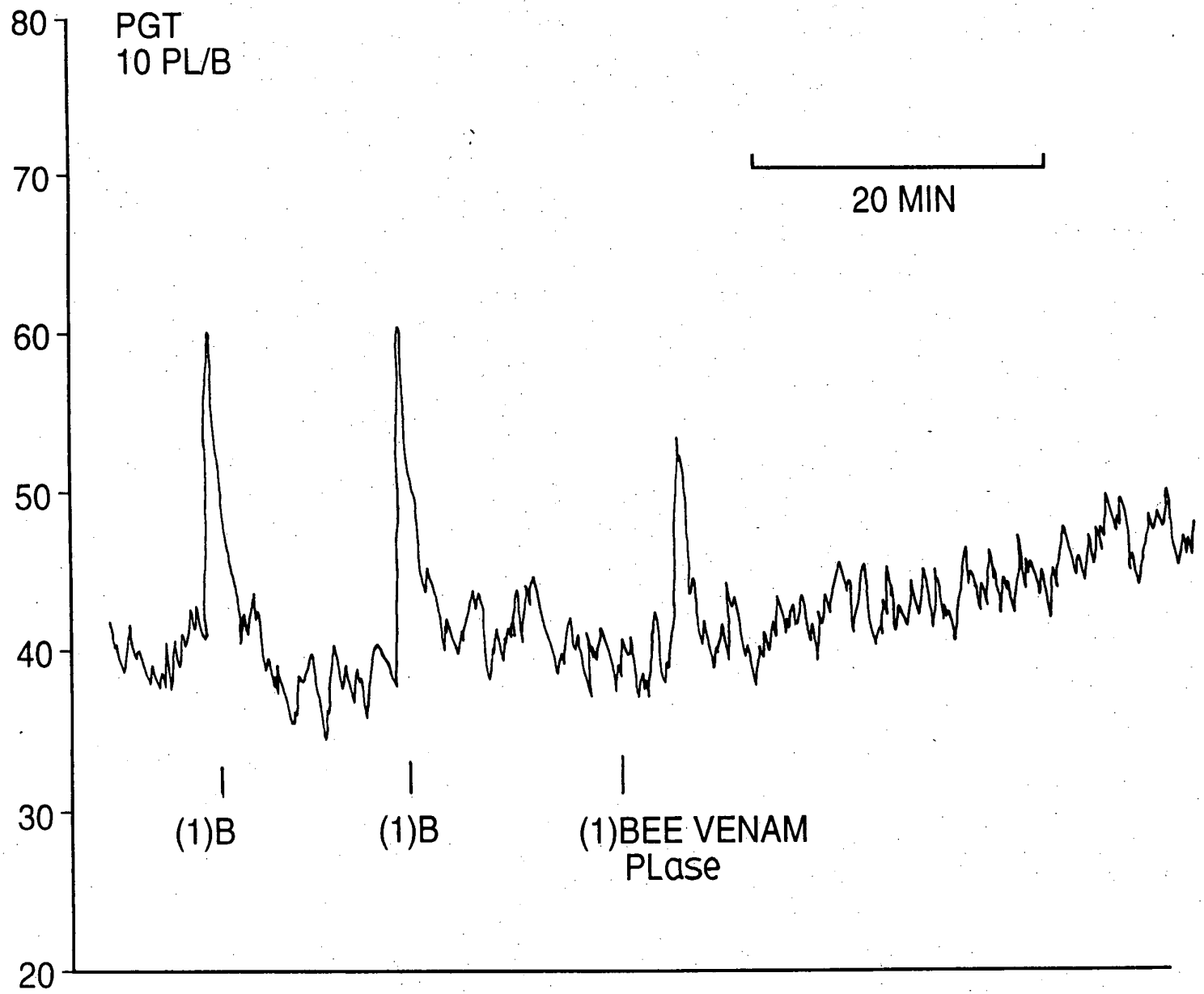


FIG.14.

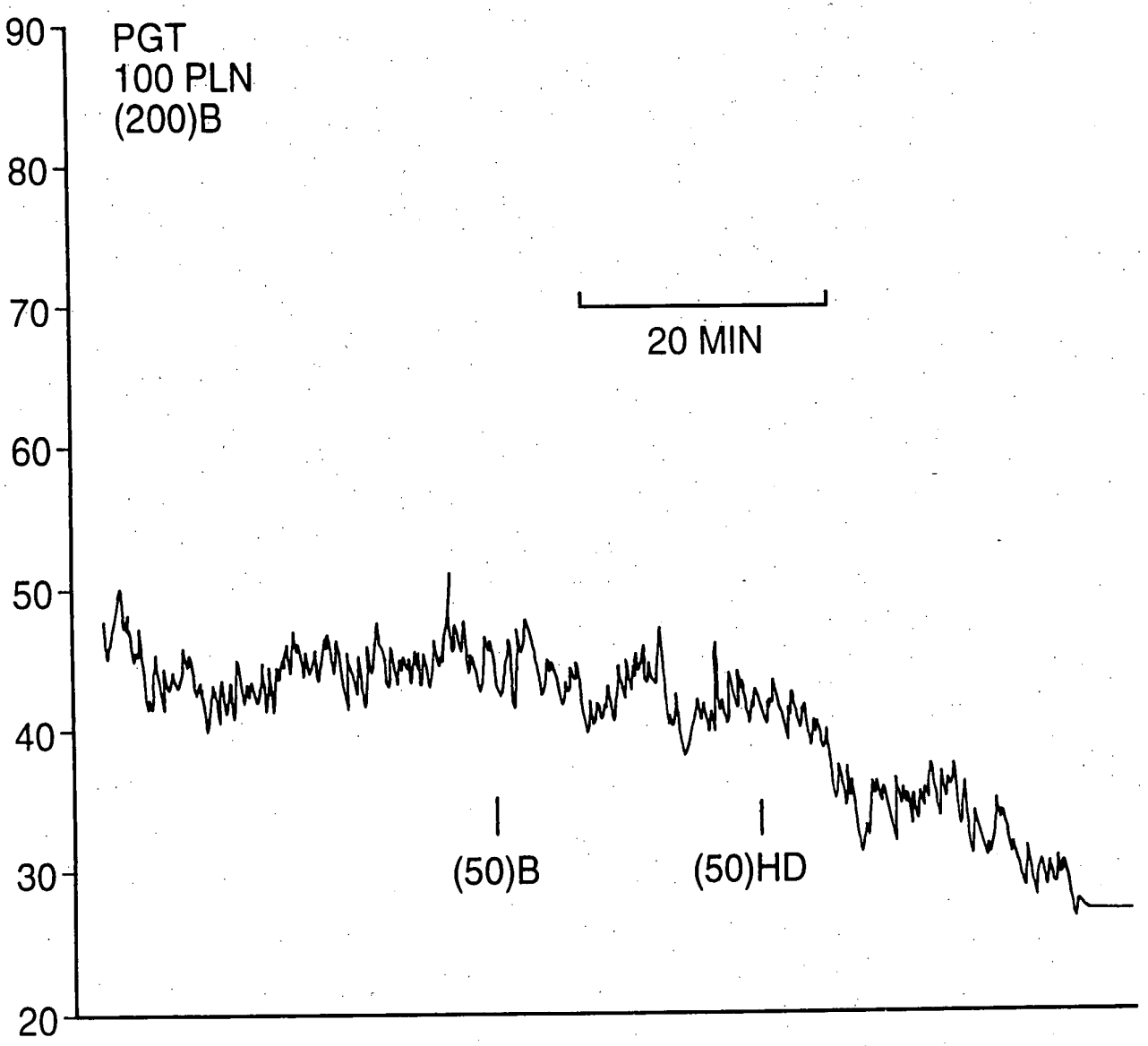


FIG.15.

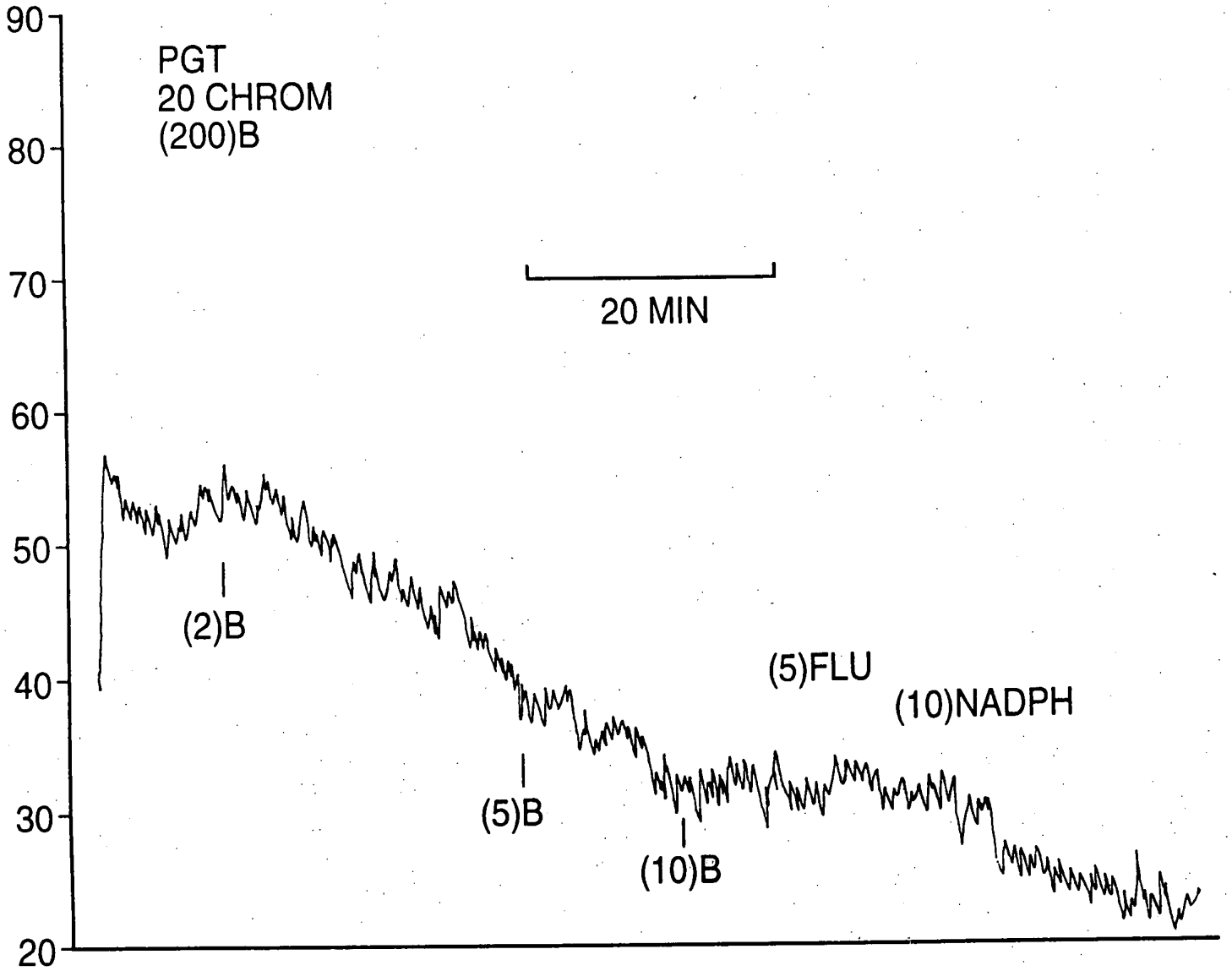

90
80
70
60
50
40
30
20
PGT
20 CHROM
(200)B
20 MIN
(2)B
(5)B
(10)B
(5)FLU
(10)NADPH

FIG.16.

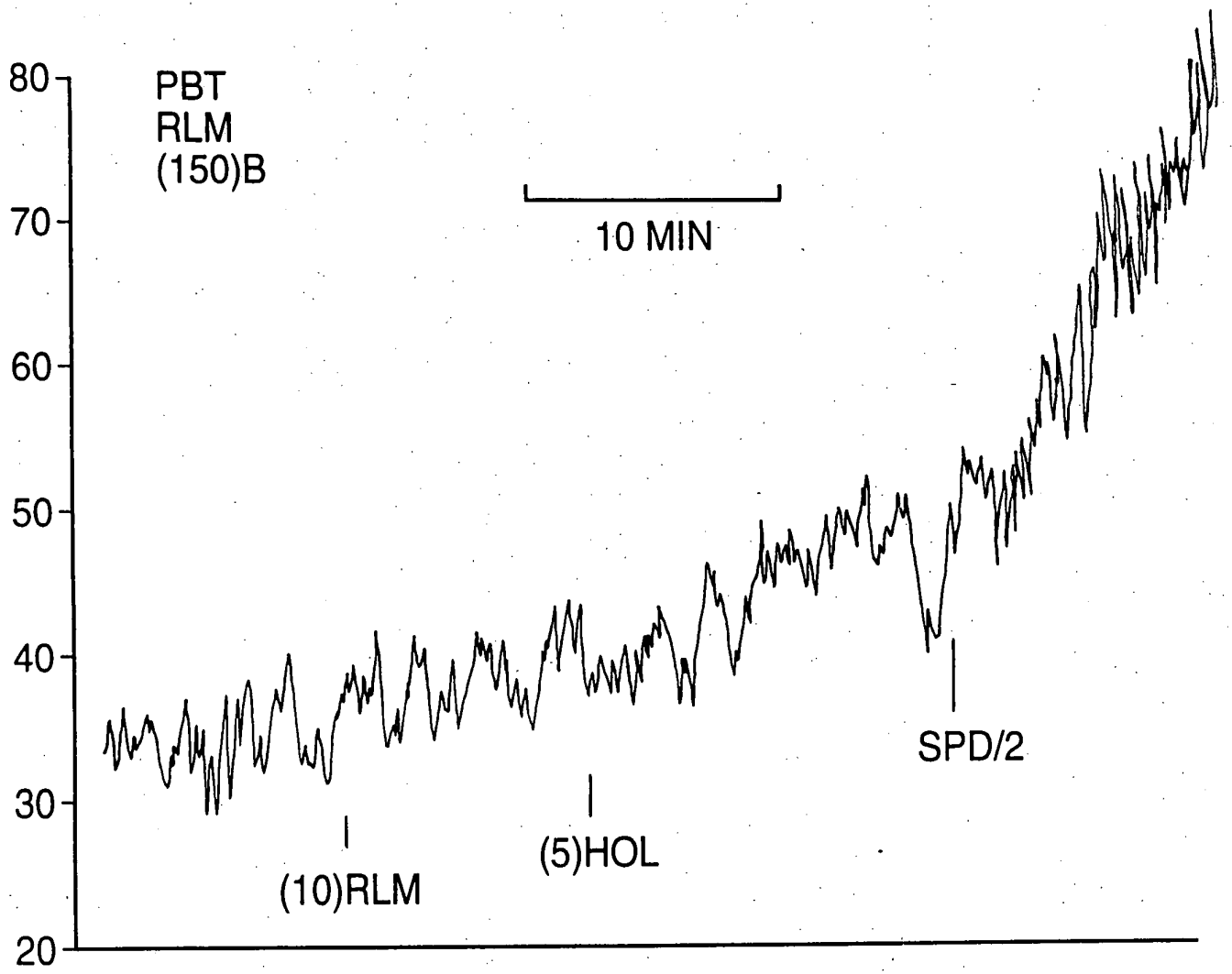


FIG.17.

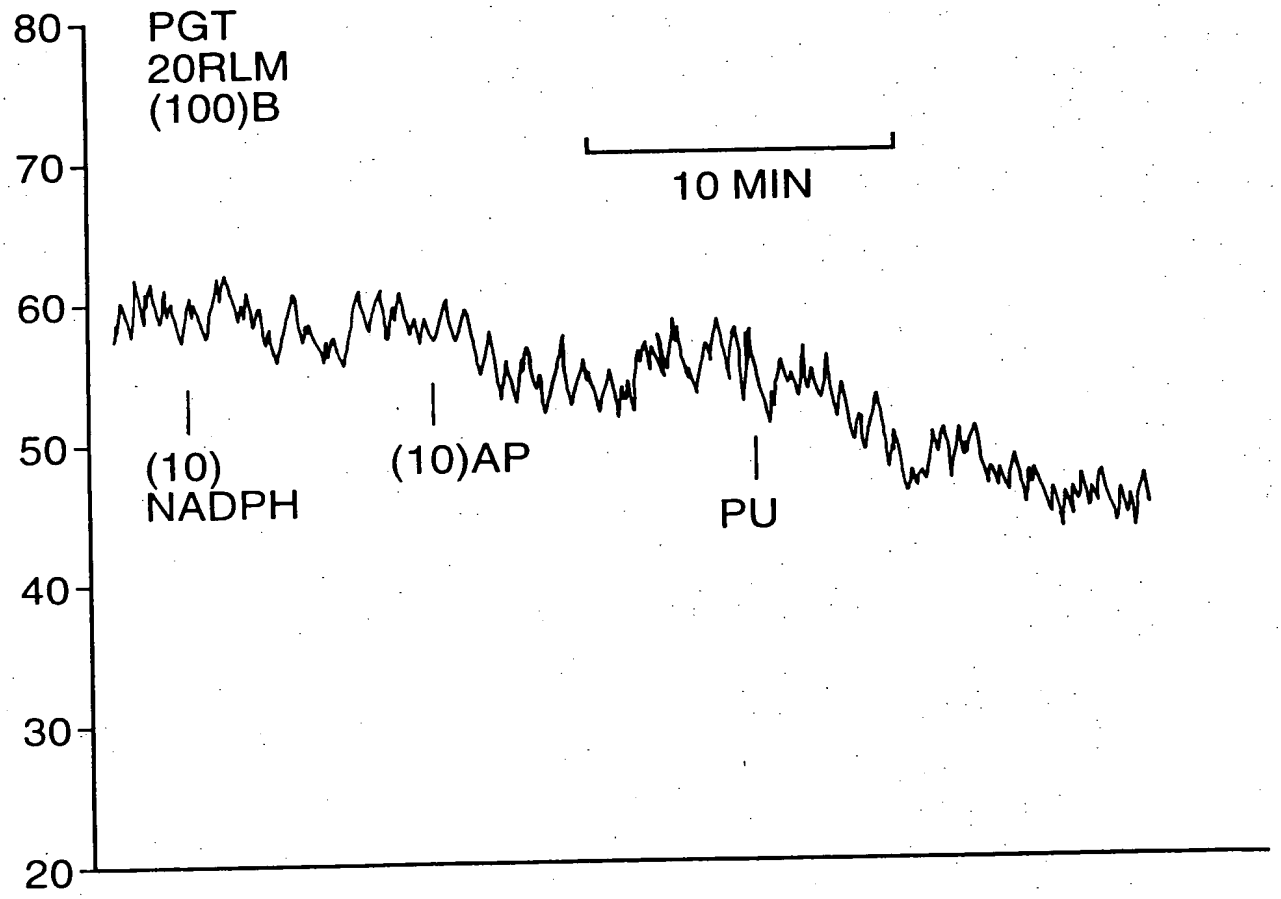


FIG.18.

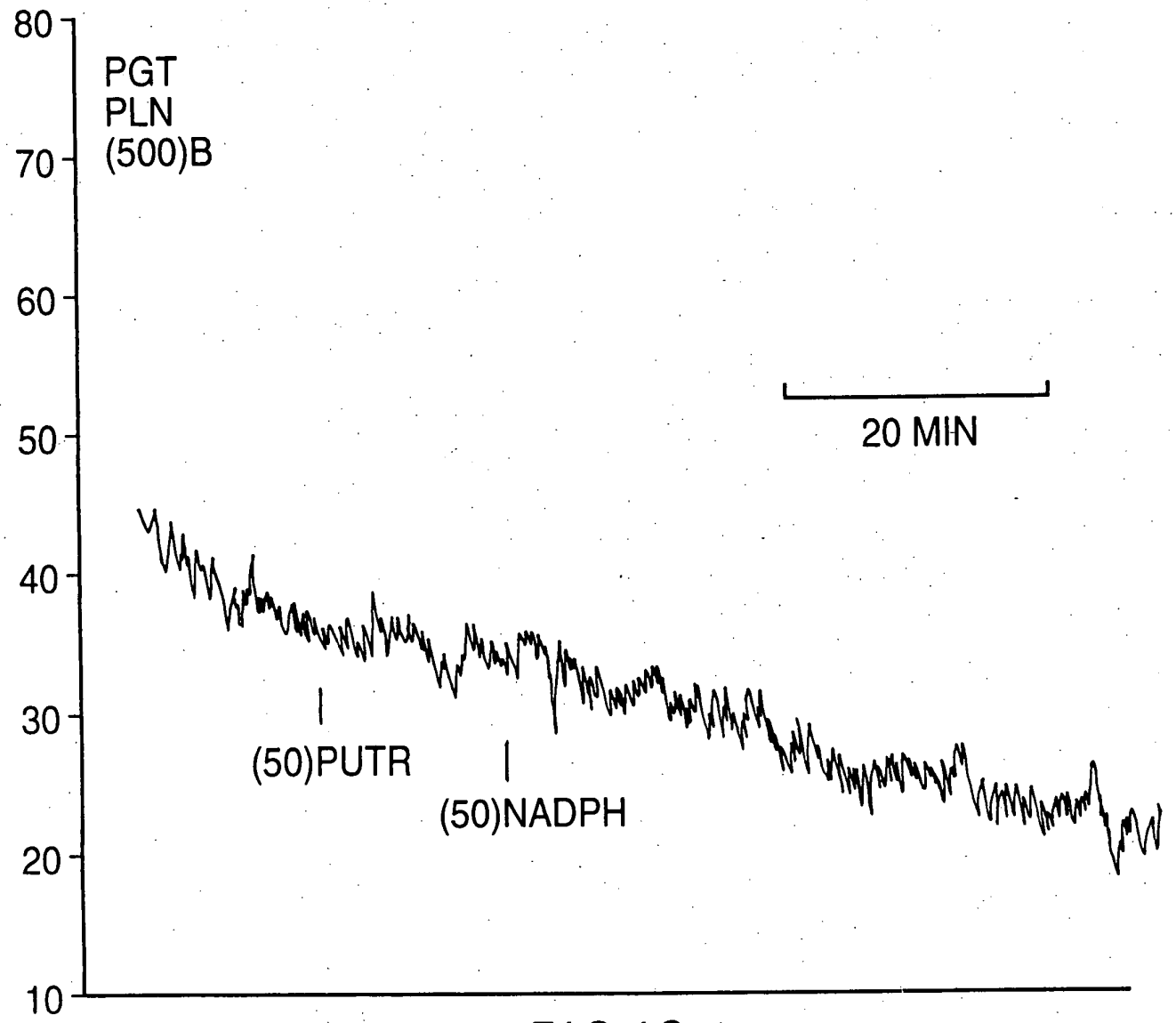


FIG.19.

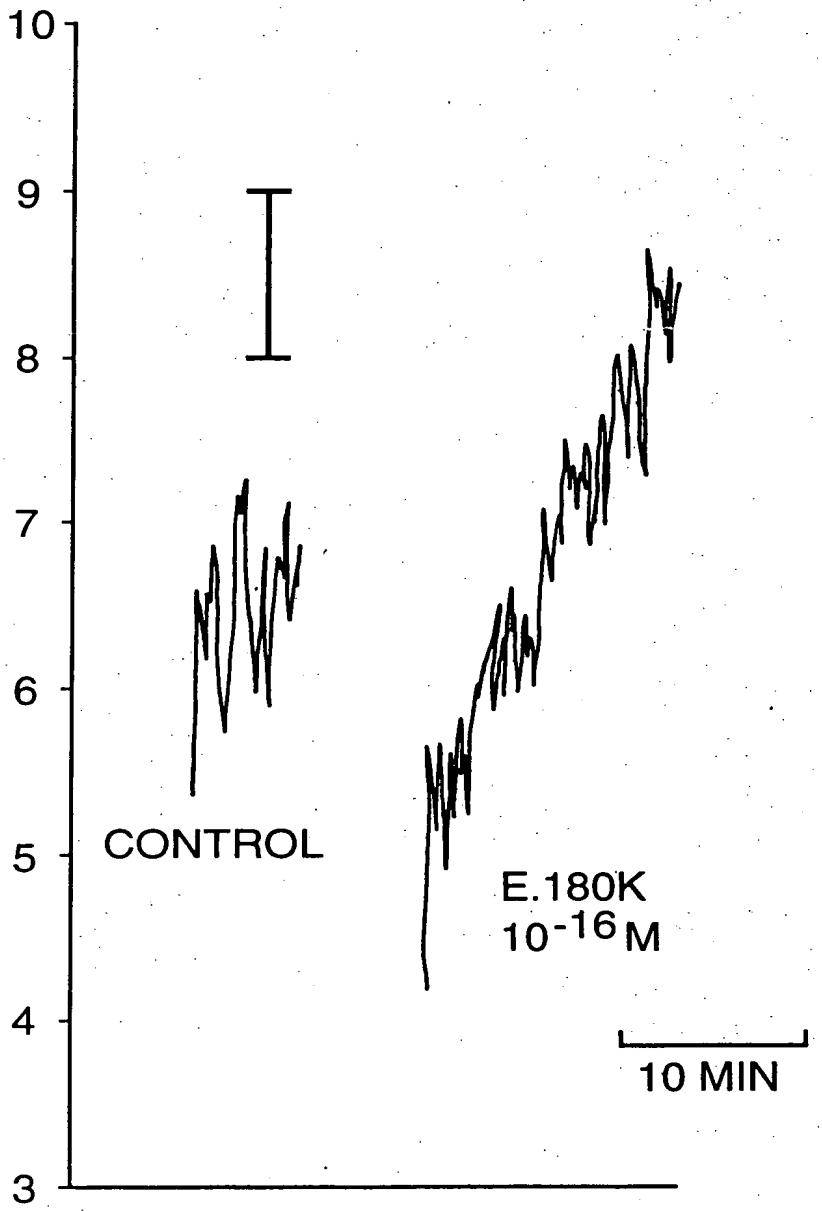


FIG.20.

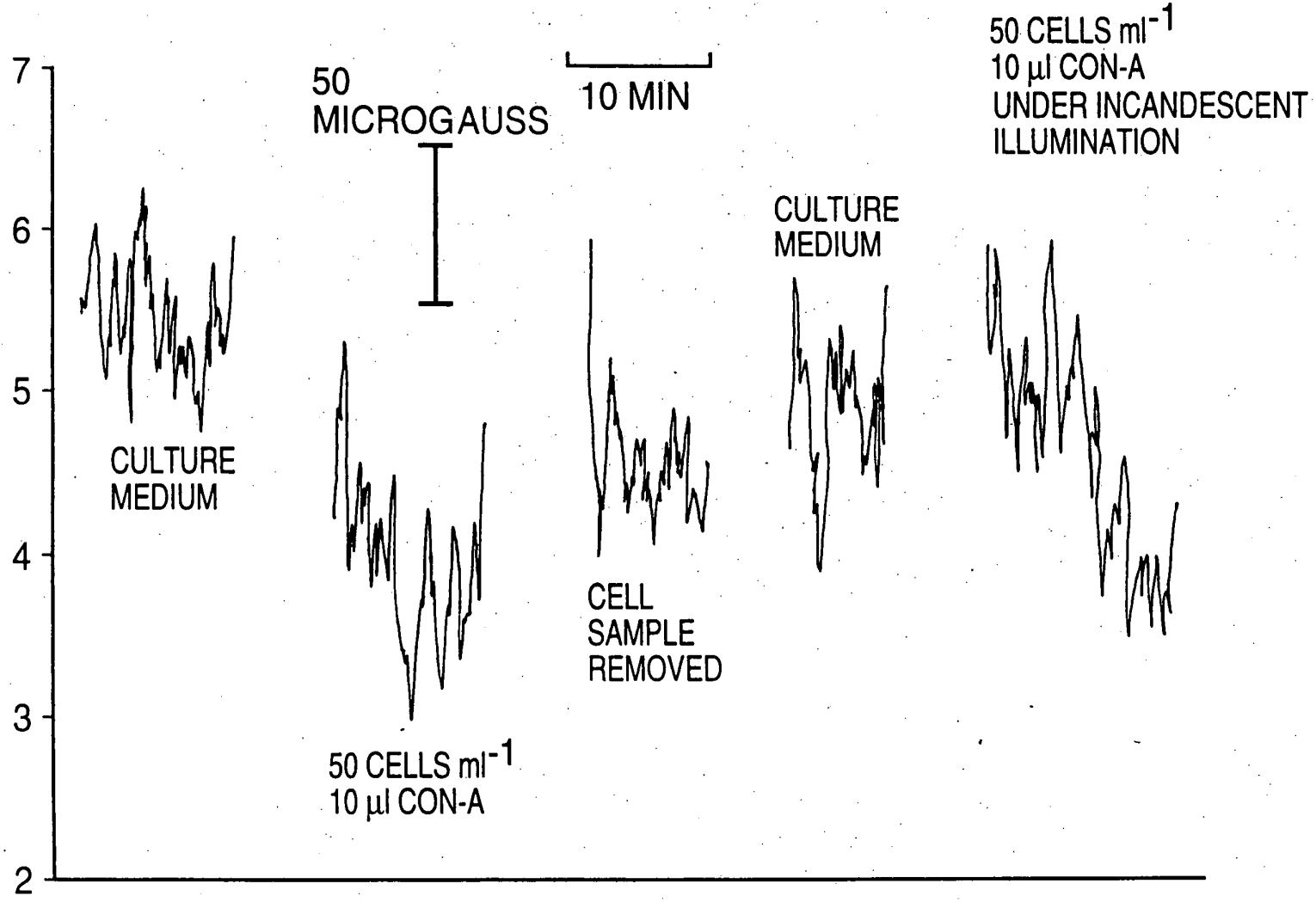

7
6
5
4
3
2
50
MICROGAUSS
10 MIN
50 CELLS ml-1
10 µl CON-A
UNDER INCANDESCENT
ILLUMINATION
CULTURE
MEDIUM
CULTURE
MEDIUM
CELL
SAMPLE
REMOVED
50 CELLS ml-1
10 µl CON-A

FIG.21.

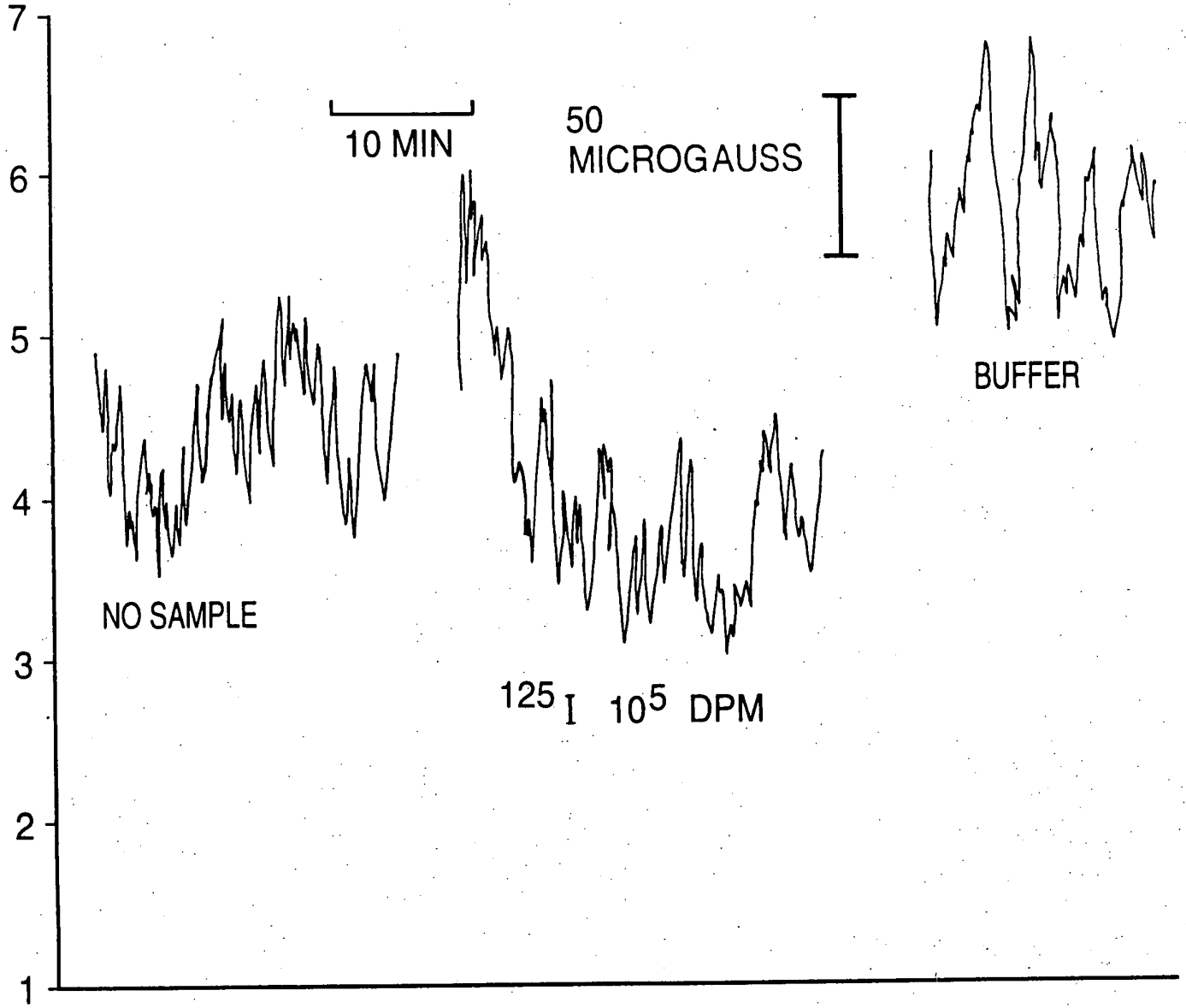


FIG.22.

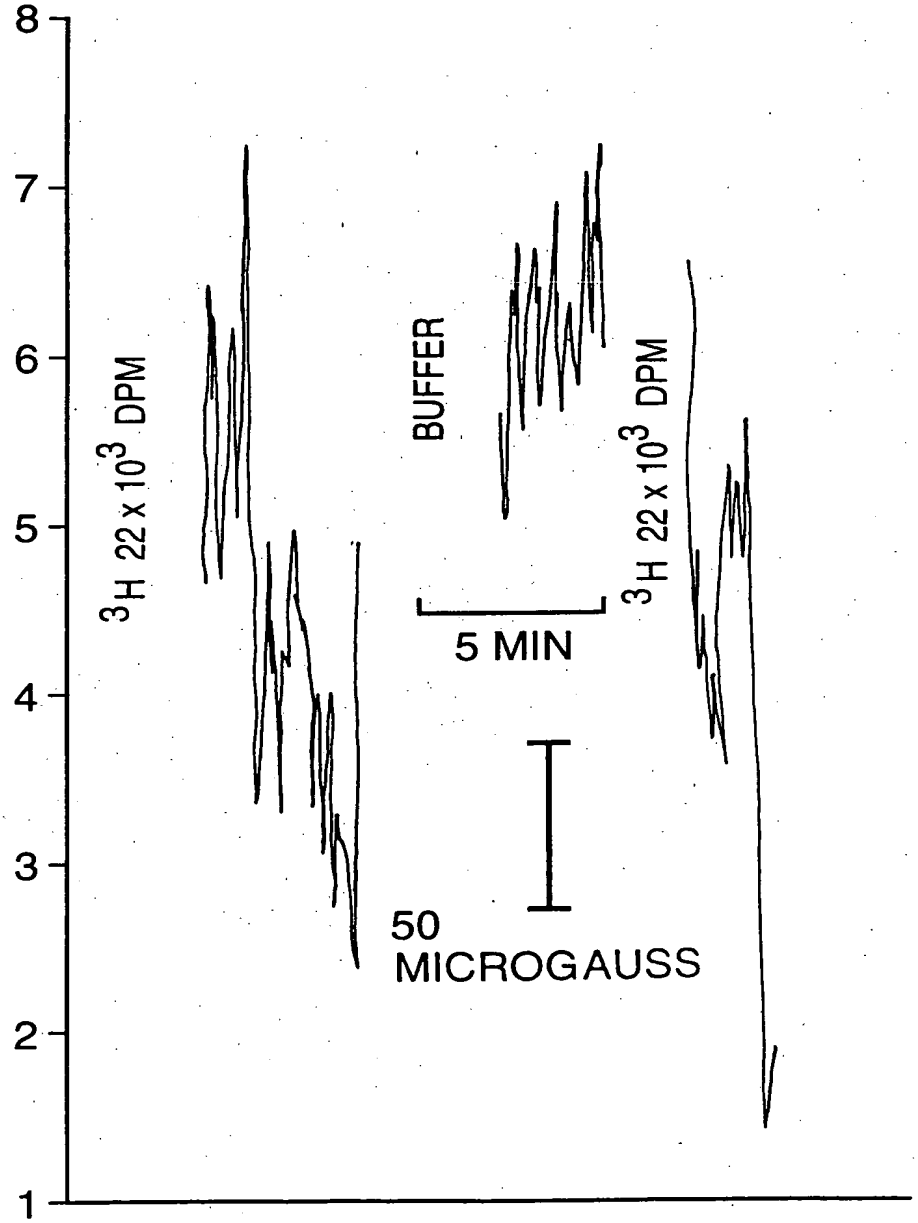

8
7
6
5
4
3
2
1
^{3}H 22 x 10^3 DPM
BUFFER
^{3}H 22 x 10^3 DPM
5 MIN
50
MICROGAUSS

FIG.23.

FOUR INDIVIDUAL RUNS WITH HYDRAZINE

FOUR INDIVIDUAL RUNS WITH A CONTROL BOTTLE

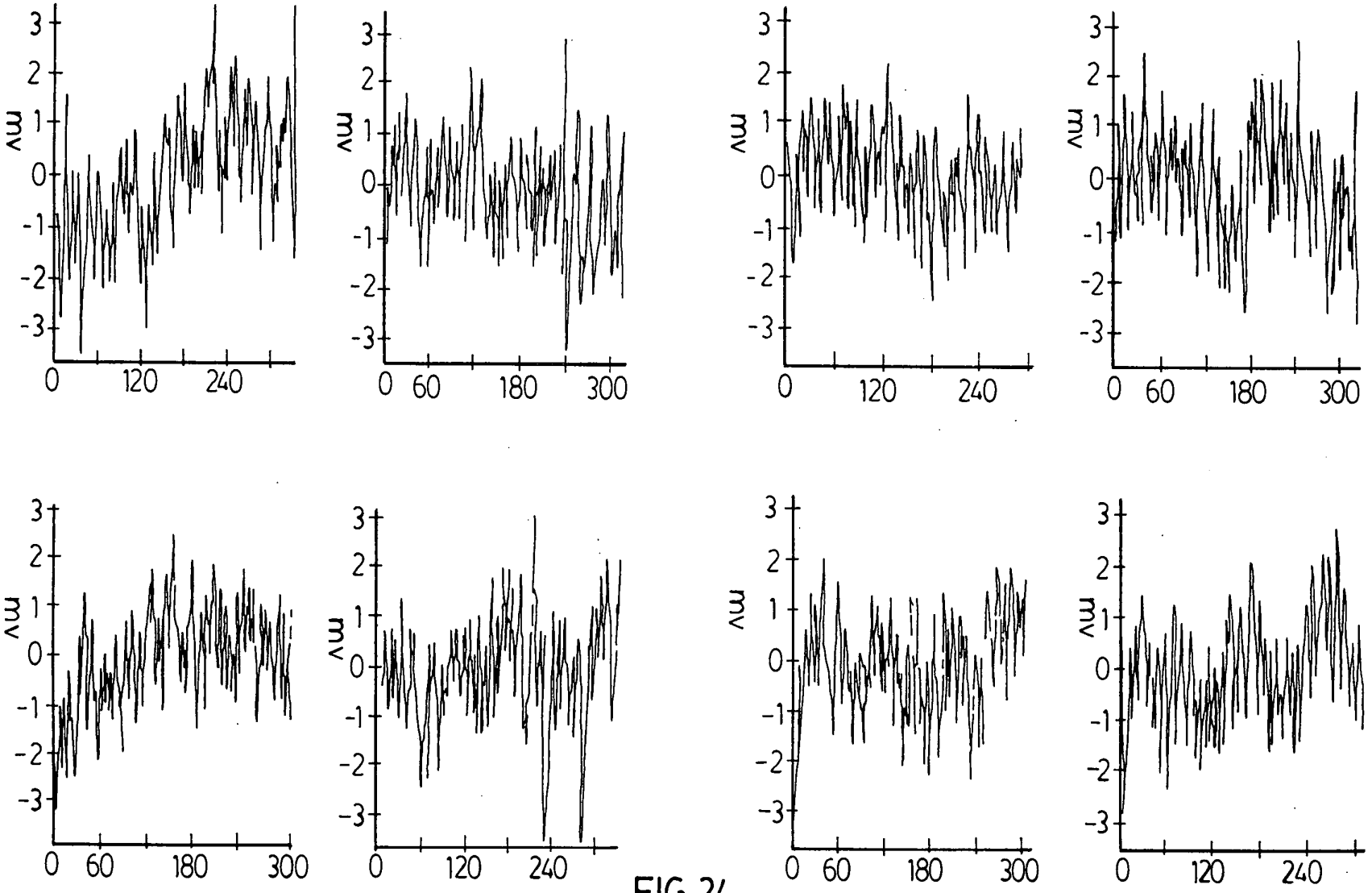


FIG. 24

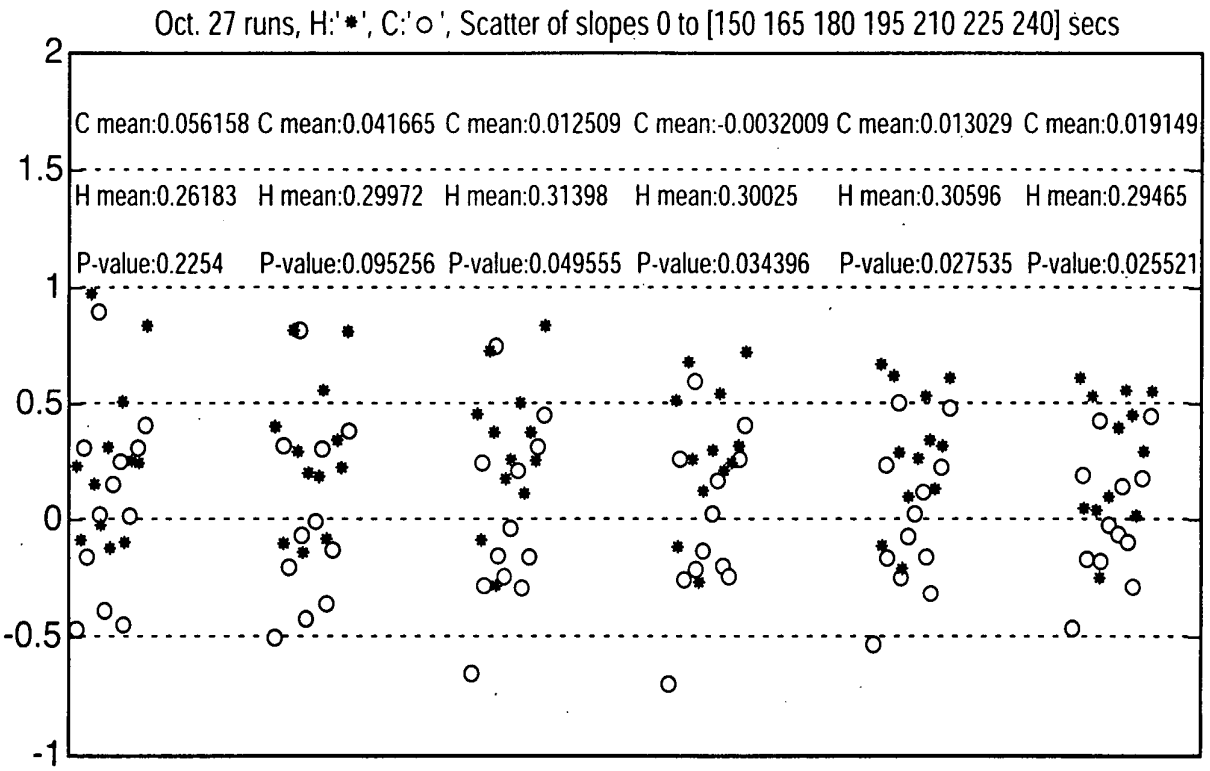

Oct. 27 runs, H:'*', C:'o', Scatter of slopes 0 to [150 165 180 195 210 225 240] secs
C mean:0.056158
C mean:0.041665
C mean:0.012509
C mean:-0.0032009
C mean:0.013029
C mean:0.019149
H mean:0.26183
H mean:0.29972
H mean:0.31398
H mean:0.30025
H mean:0.30596
H mean:0.29465
P-value:0.2254
P-value:0.095256
P-value:0.049555
P-value:0.034396
P-value:0.027535
P-value:0.025521
2
1.5
1
0.5
0
-0.5
-1

FIG.25A

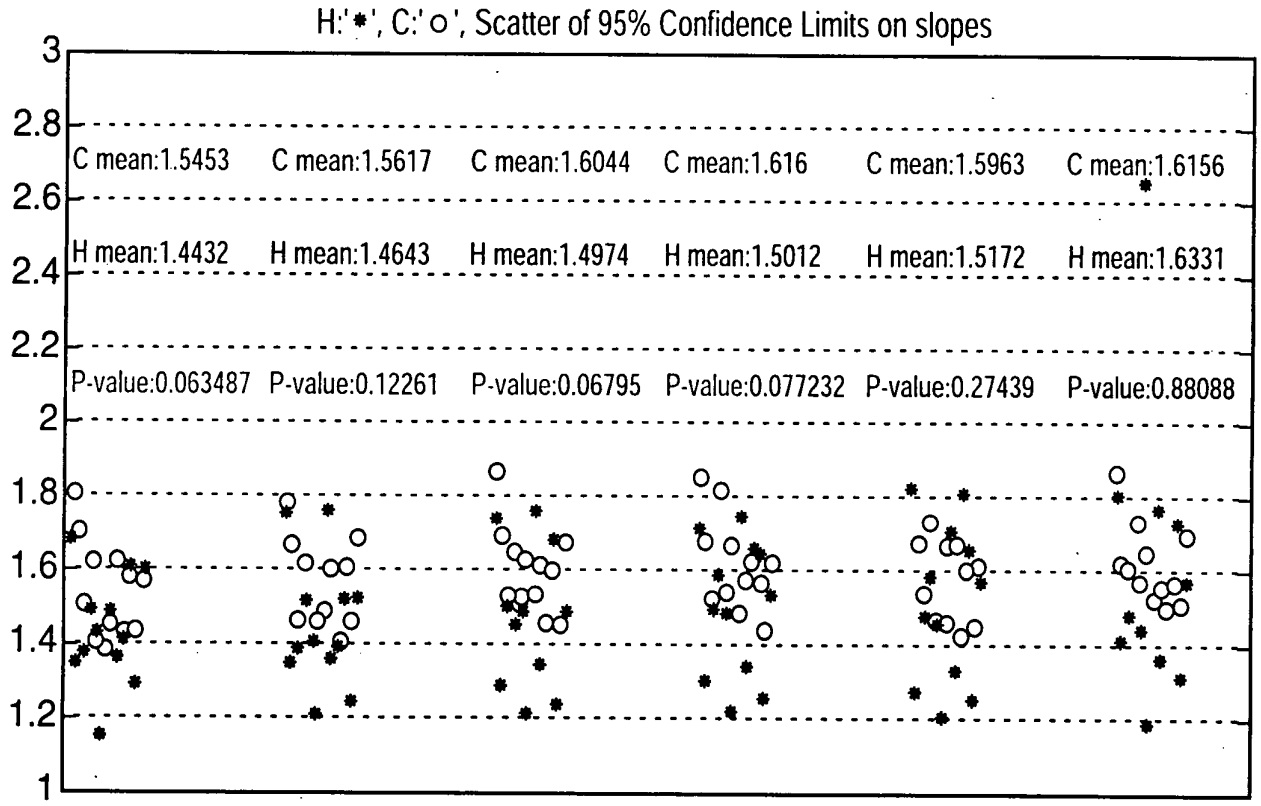

H:'*', C:'o', Scatter of 95% Confidence Limits on slopes
3
2.8
2.6
2.4
2.2
2
1.8
1.6
1.4
1.2
1
C mean:1.5453
C mean:1.5617
C mean:1.6044
C mean:1.616
C mean:1.5963
C mean:1.6156
H mean:1.4432
H mean:1.4643
H mean:1.4974
H mean:1.5012
H mean:1.5172
H mean:1.6331
P-value:0.063487
P-value:0.12261
P-value:0.06795
P-value:0.077232
P-value:0.27439
P-value:0.88088

FIG.25B

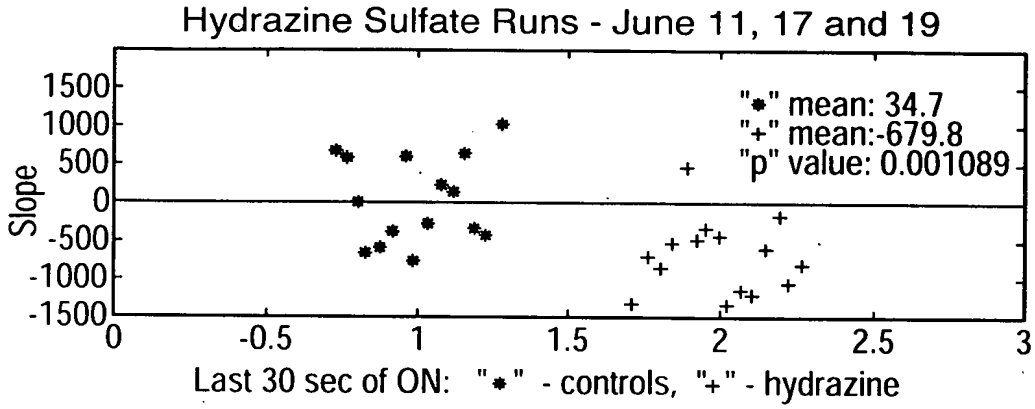


FIG.26A

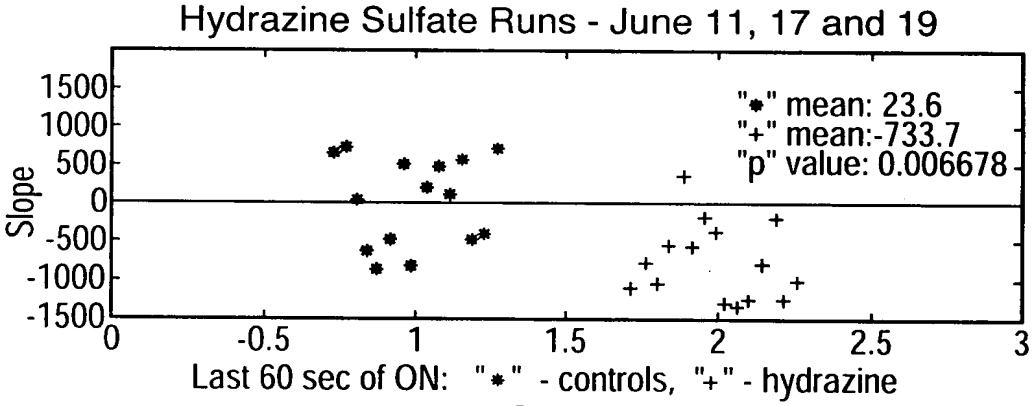


FIG.26B

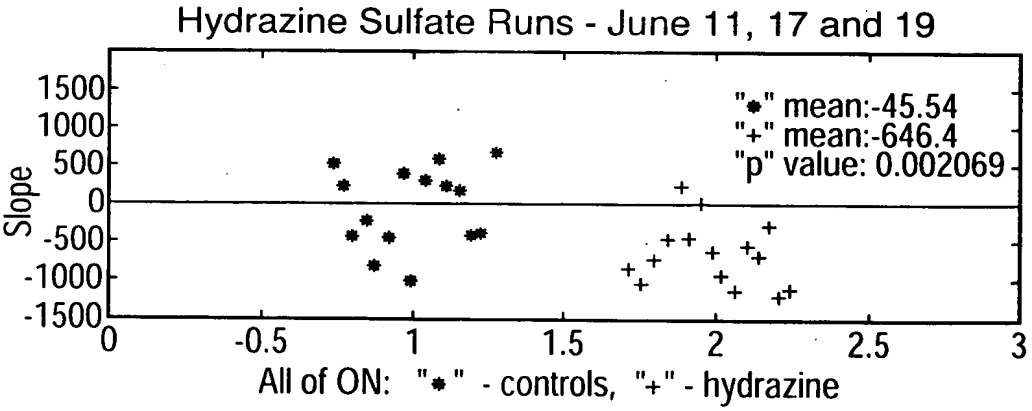


FIG.26C

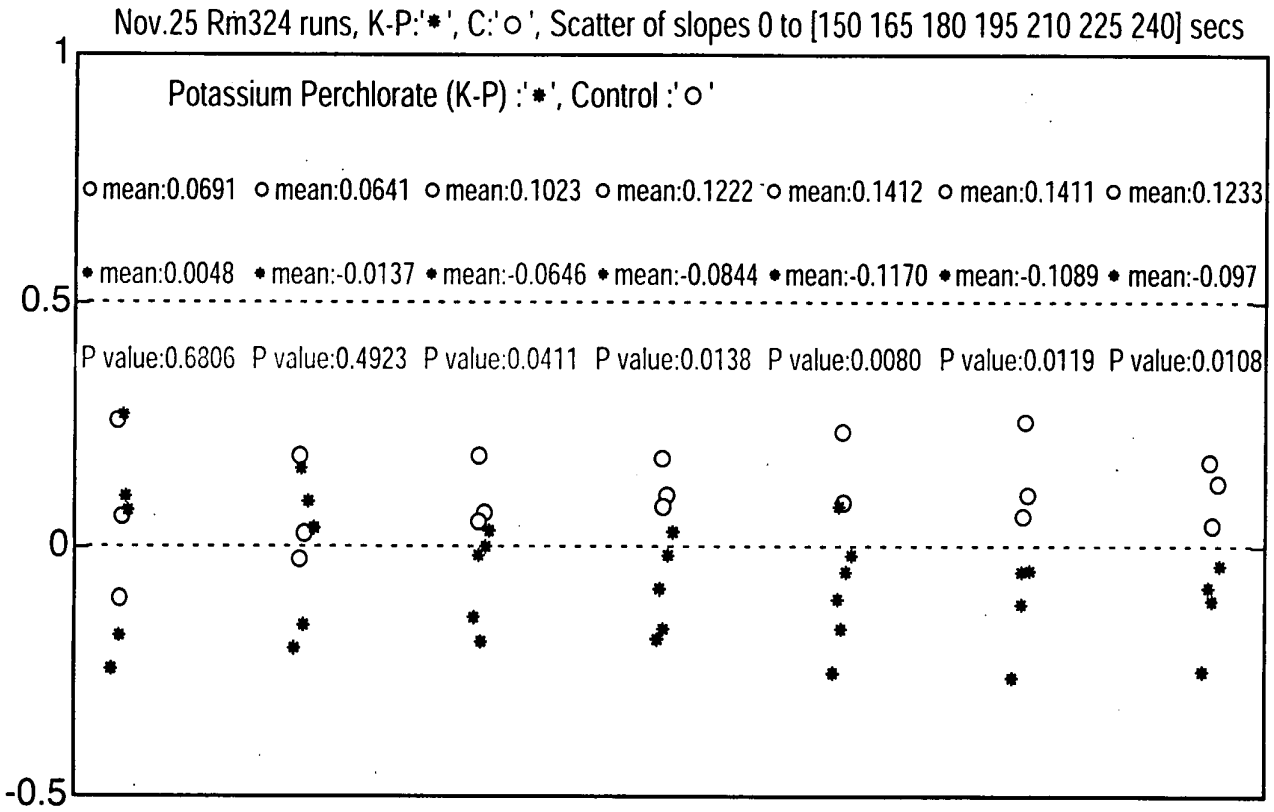

Nov.25 Rm324 runs, K-P:'*', C:'o', Scatter of slopes 0 to [150 165 180 195 210 225 240] secs
Potassium Perchlorate (K-P) :'*', Control :'o'
o mean:0.0691 o mean:0.0641 o mean:0.1023 o mean:0.1222 o mean:0.1412 o mean:0.1411 o mean:0.1233
* mean:0.0048 * mean:-0.0137 * mean:-0.0646 * mean:-0.0844 * mean:-0.1170 * mean:-0.1089 * mean:-0.097
P value:0.6806 P value:0.4923 P value:0.0411 P value:0.0138 P value:0.0080 P value:0.0119 P value:0.0108
1
0.5
0
-0.5

FIG.27A

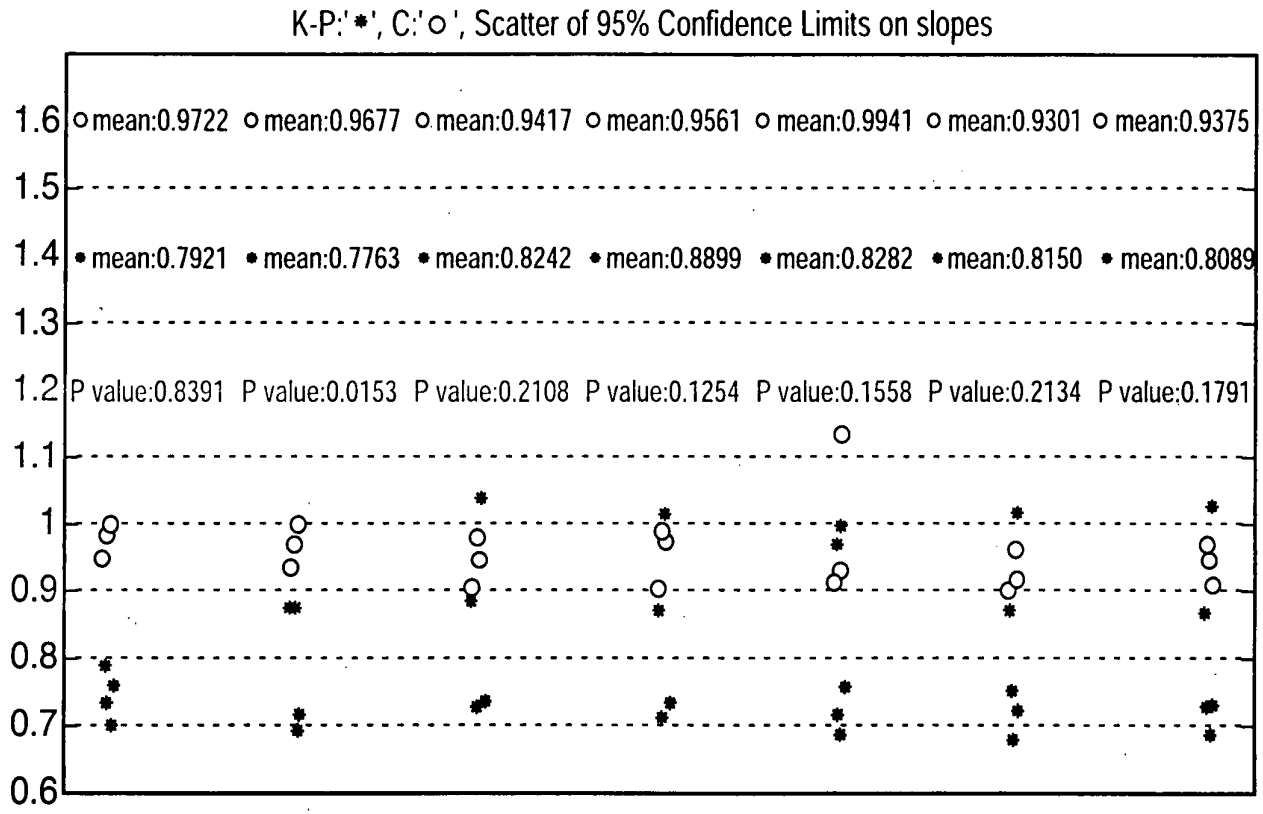

K-P:'*', C:'o', Scatter of 95% Confidence Limits on slopes
o mean:0.9722 o mean:0.9677 o mean:0.9417 o mean:0.9561 o mean:0.9941 o mean:0.9301 o mean:0.9375
* mean:0.7921 * mean:0.7763 * mean:0.8242 * mean:0.8899 * mean:0.8282 * mean:0.8150 * mean:0.8089
P value:0.8391 P value:0.0153 P value:0.2108 P value:0.1254 P value:0.1558 P value:0.2134 P value:0.1791
1.6
1.5
1.4
1.3
1.2
1.1
1
0.9
0.8
0.7
0.6

FIG.27B

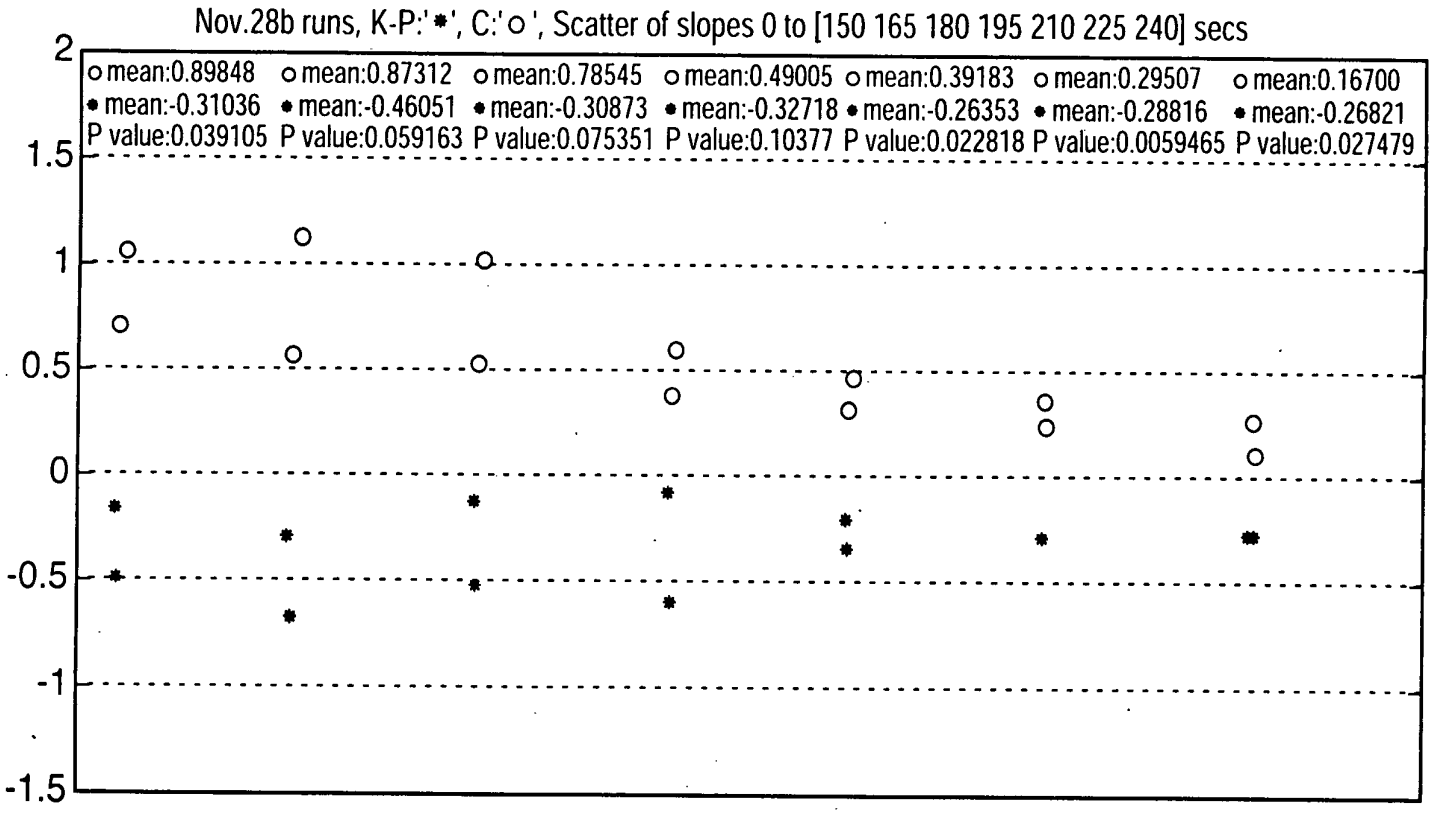

Nov.28b runs, K-P:'*', C:'o', Scatter of slopes 0 to [150 165 180 195 210 225 240] secs
o mean:0.89848 o mean:0.87312 o mean:0.78545 o mean:0.49005 o mean:0.39183 o mean:0.29507 o mean:0.16700
* mean:-0.31036 * mean:-0.46051 * mean:-0.30873 * mean:-0.32718 * mean:-0.26353 * mean:-0.28816 * mean:-0.26821
P value:0.039105 P value:0.059163 P value:0.075351 P value:0.10377 P value:0.022818 P value:0.0059465 P value:0.027479
2
1.5
1
0.5
0
-0.5
-1
-1.5

FIG.28A

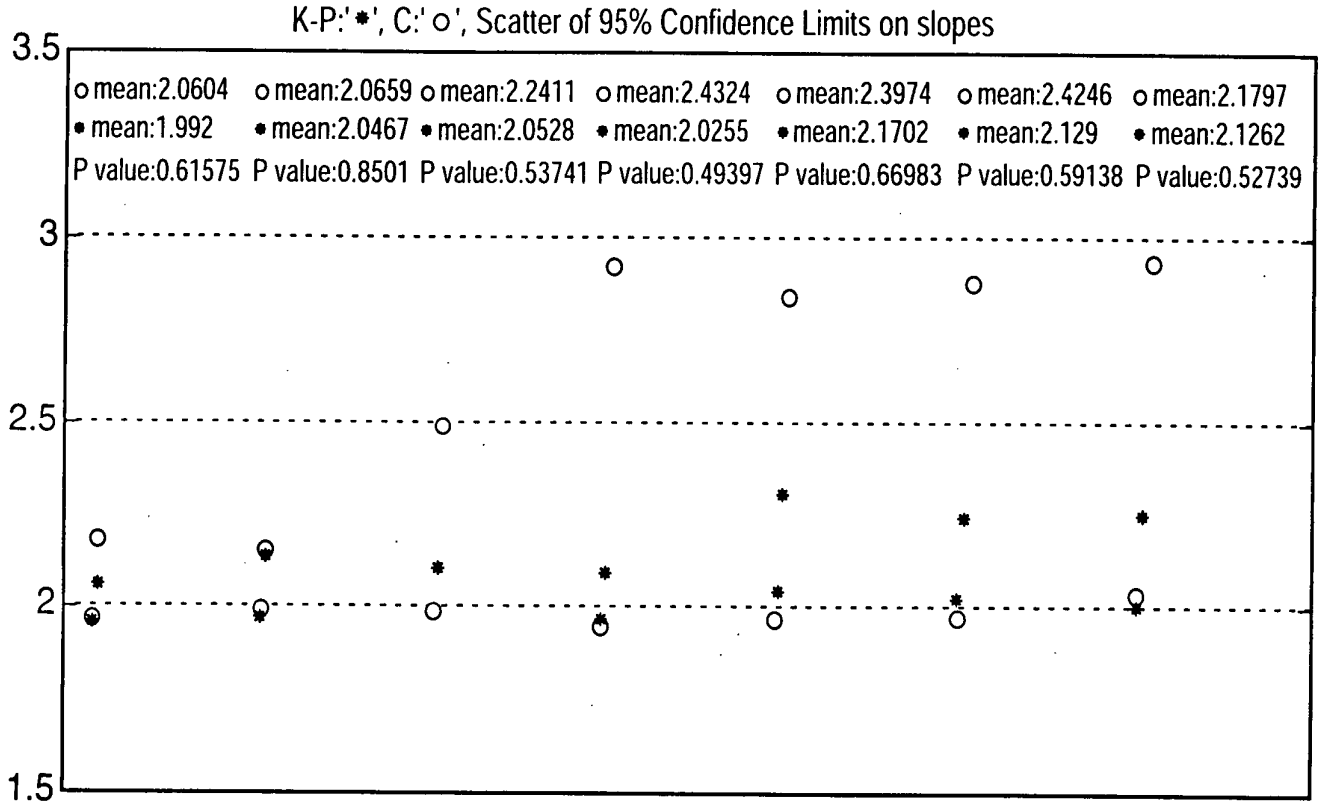

K-P:'*', C:'o', Scatter of 95% Confidence Limits on slopes
o mean:2.0604 o mean:2.0659 o mean:2.2411 o mean:2.4324 o mean:2.3974 o mean:2.4246 o mean:2.1797
* mean:1.992 * mean:2.0467 * mean:2.0528 * mean:2.0255 * mean:2.1702 * mean:2.129 * mean:2.1262
P value:0.61575 P value:0.8501 P value:0.53741 P value:0.49397 P value:0.66983 P value:0.59138 P value:0.52739
3.5
3
2.5
2
1.5

FIG.28B

Fig.29 A

COMPUTER-GENERATED FACSIMILE OF CHART RECORDING

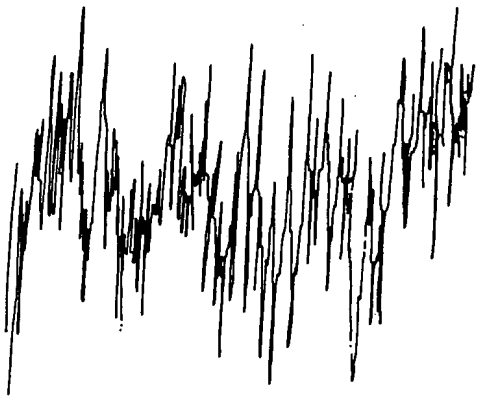
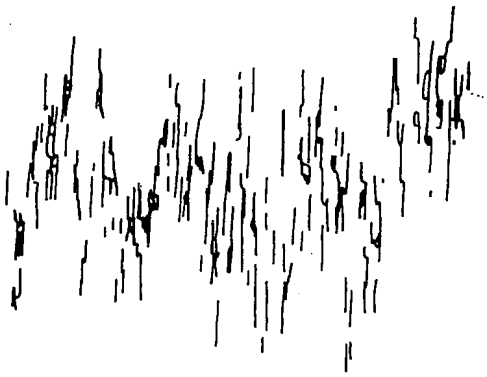


Fig.29 B

ELIMINATION OF DENSITIES BELOW AN ARBITRARY THRESHOLD. SHOWN ON COMPUTER SCREEN FACSIMILE OF CHART RECORDING



REPRESENTATIVE CALCULATIONS

* number of densities:136
* number of densities with areas > 70 units
* Total area of densities: 5709 units
* Total area of densities > 70 units: 2559 units

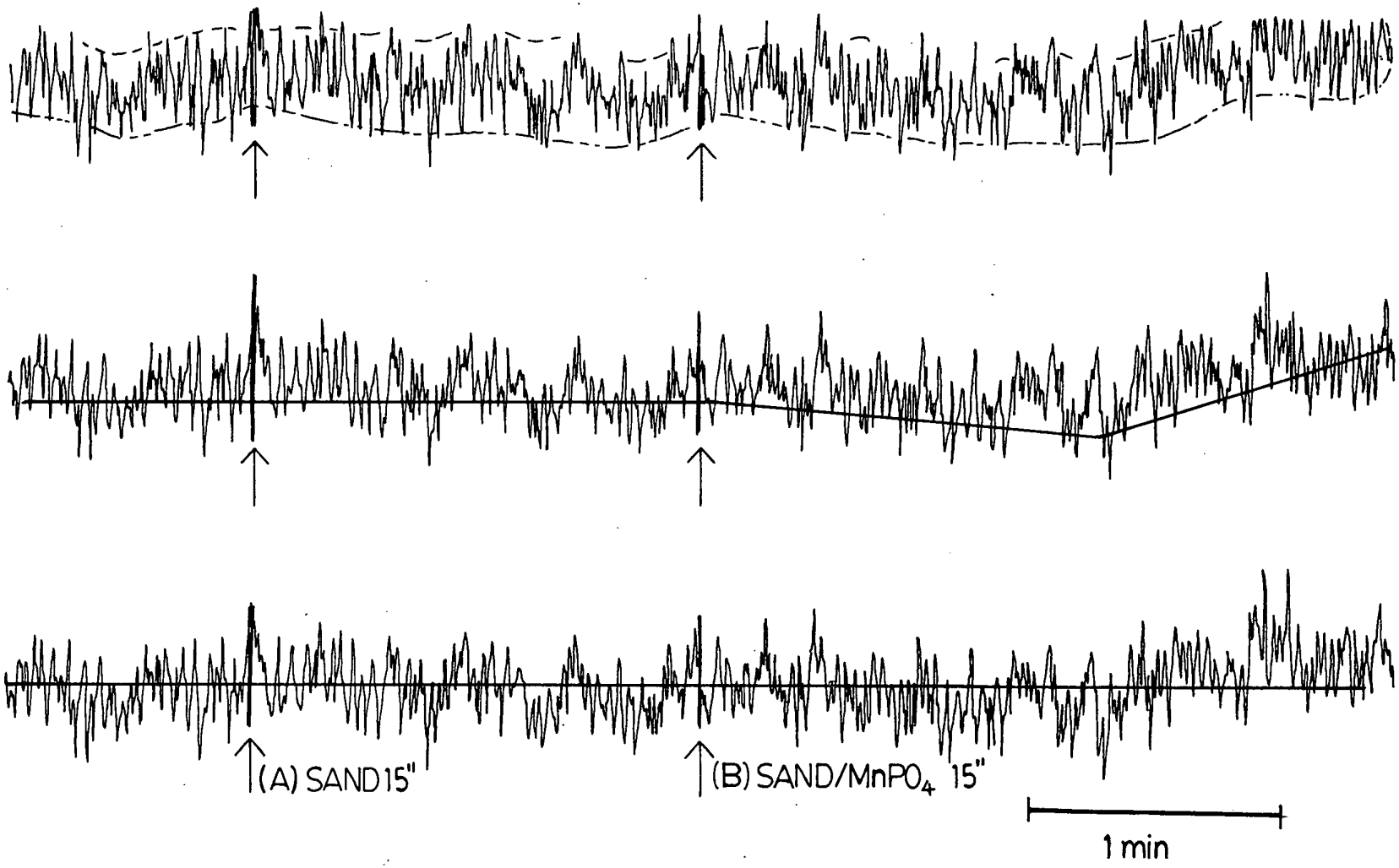


FIG. 30

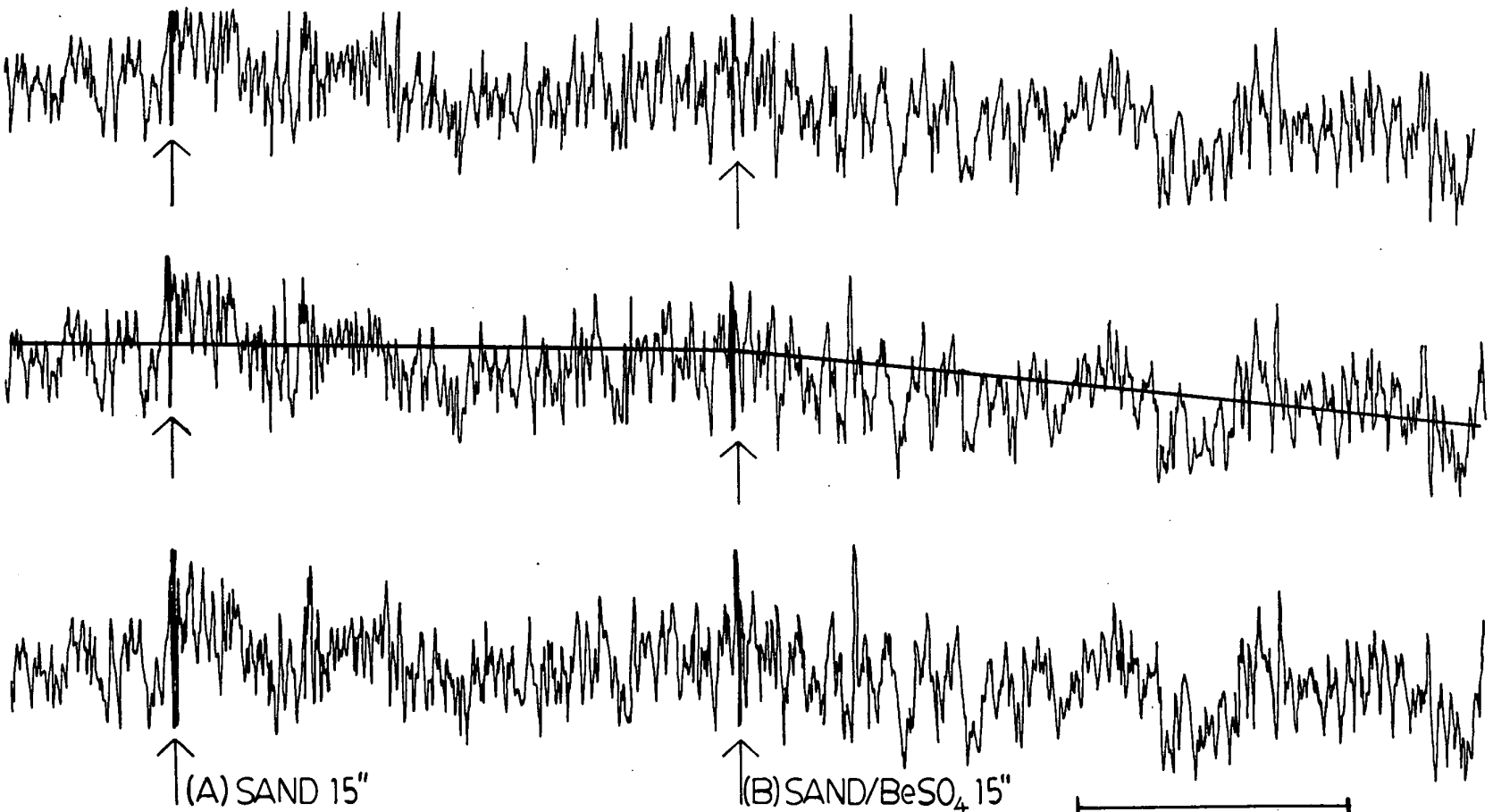


FIG.31

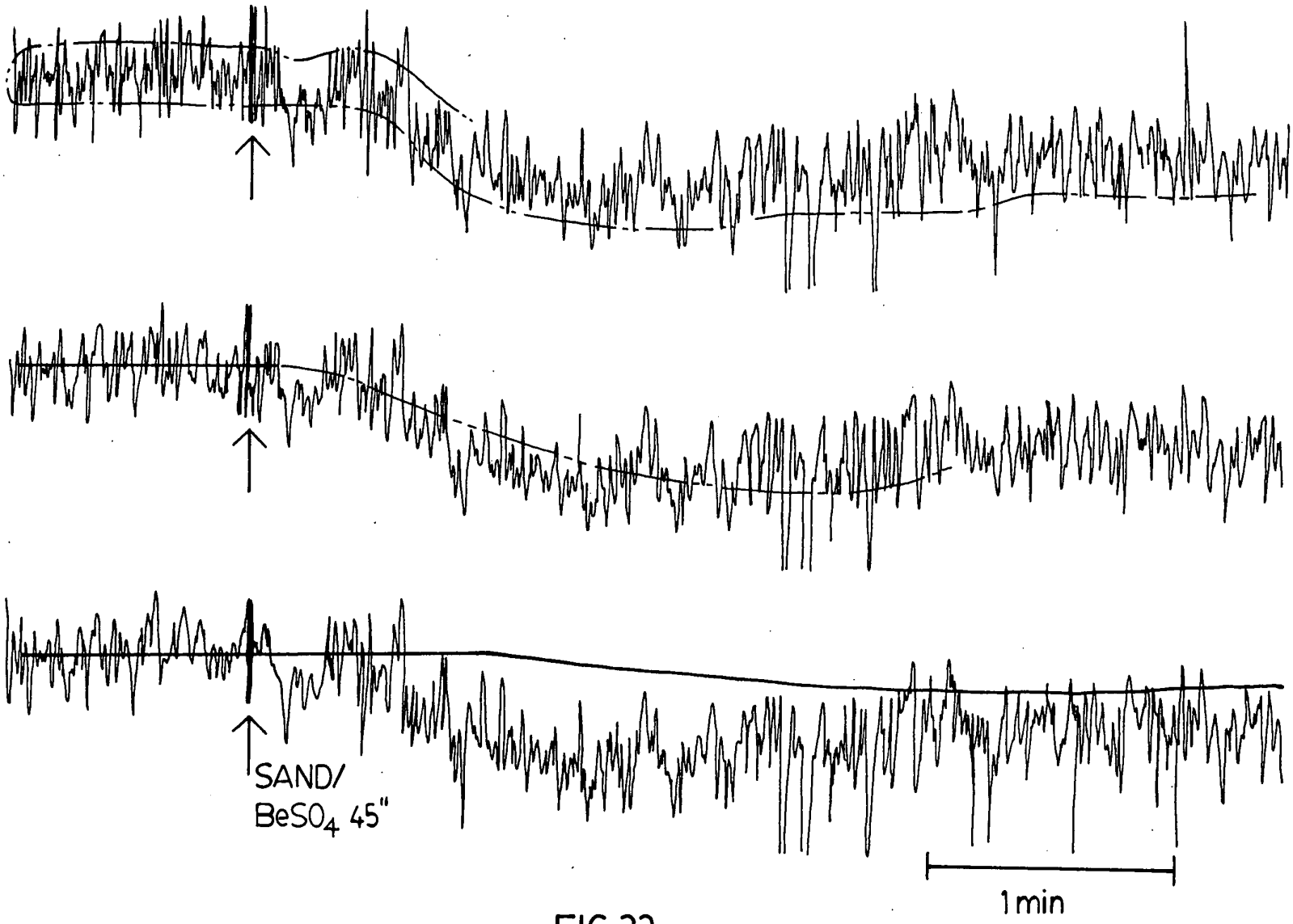


FIG. 32

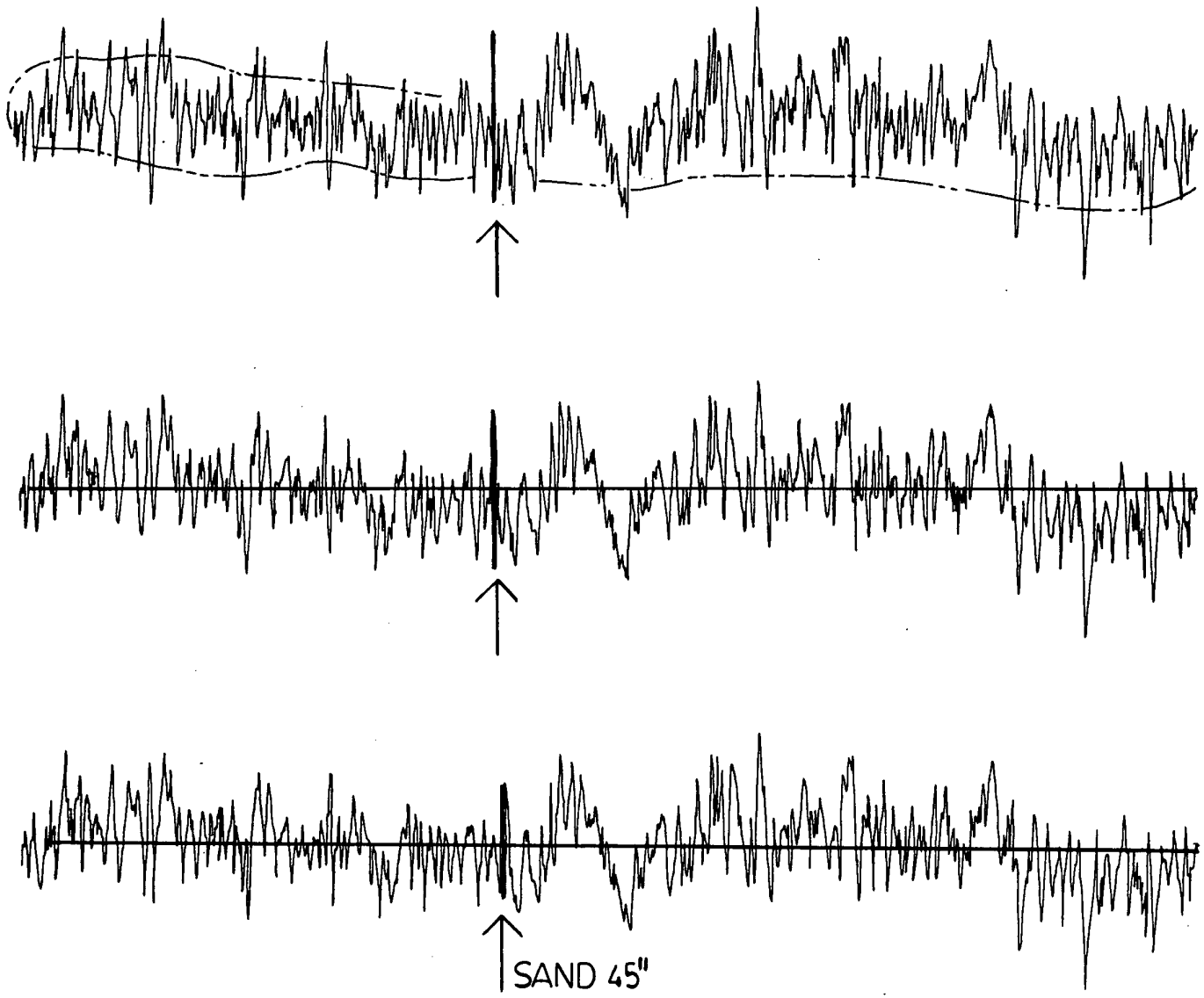


FIG.33

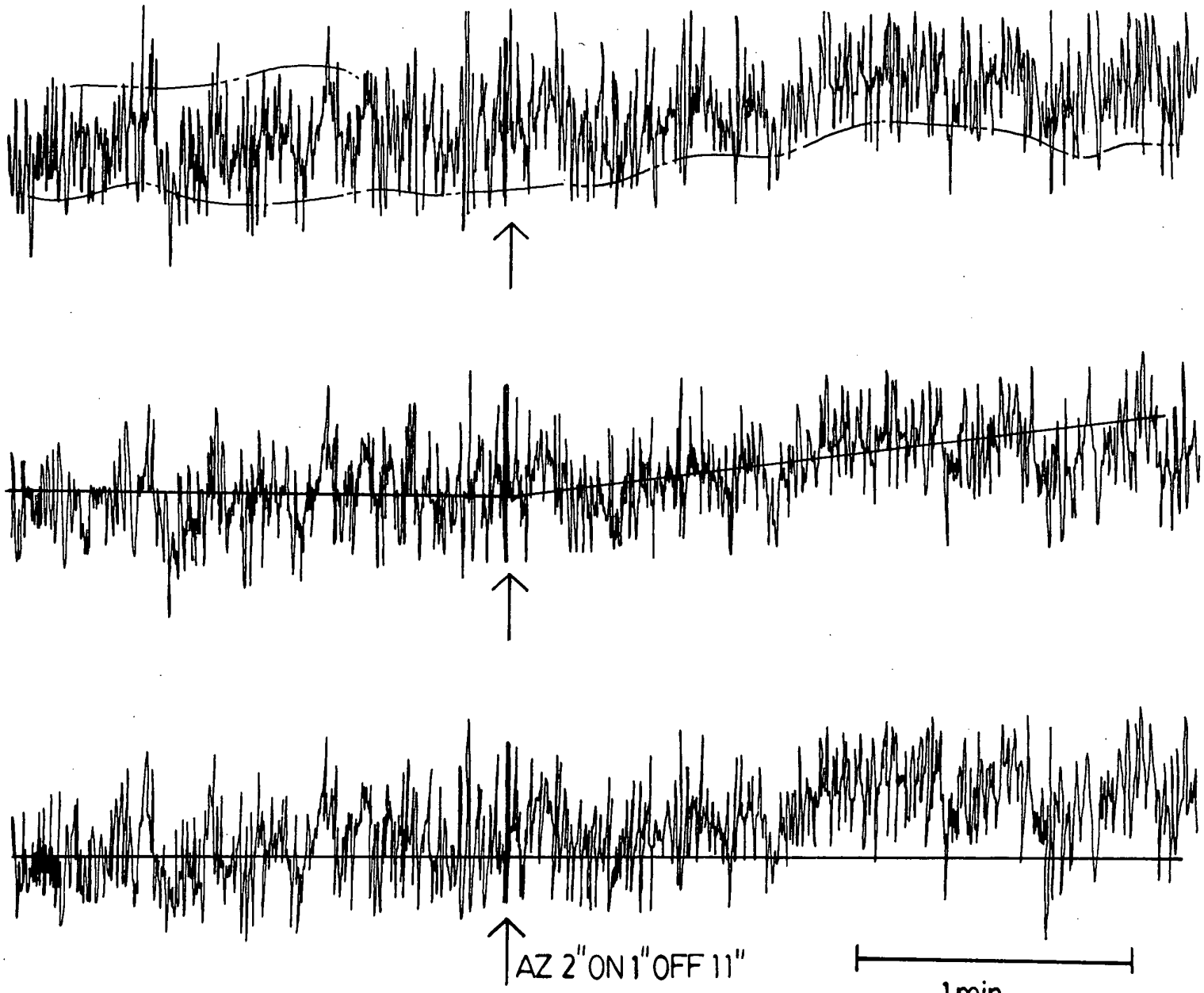


FIG. 34

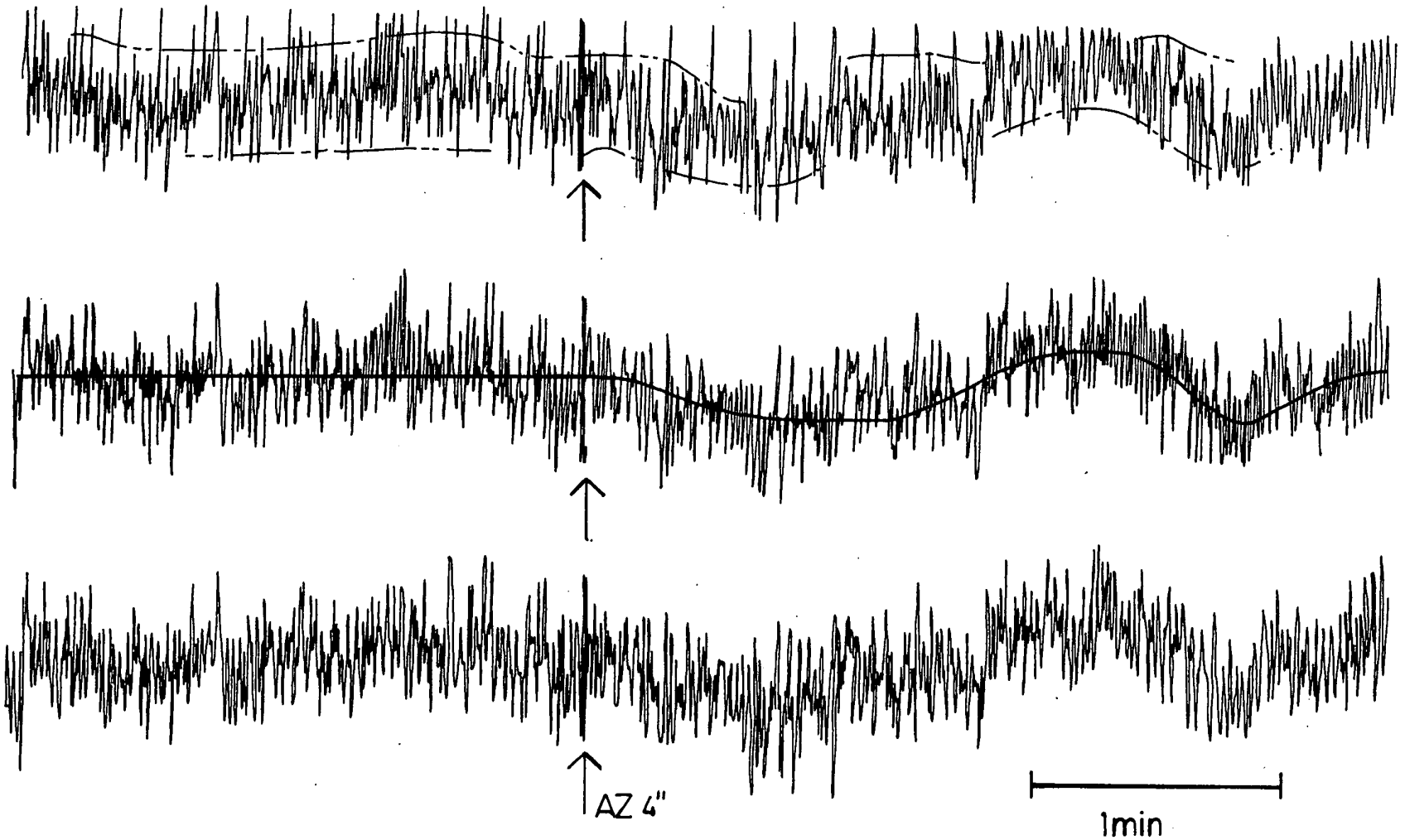


FIG. 35

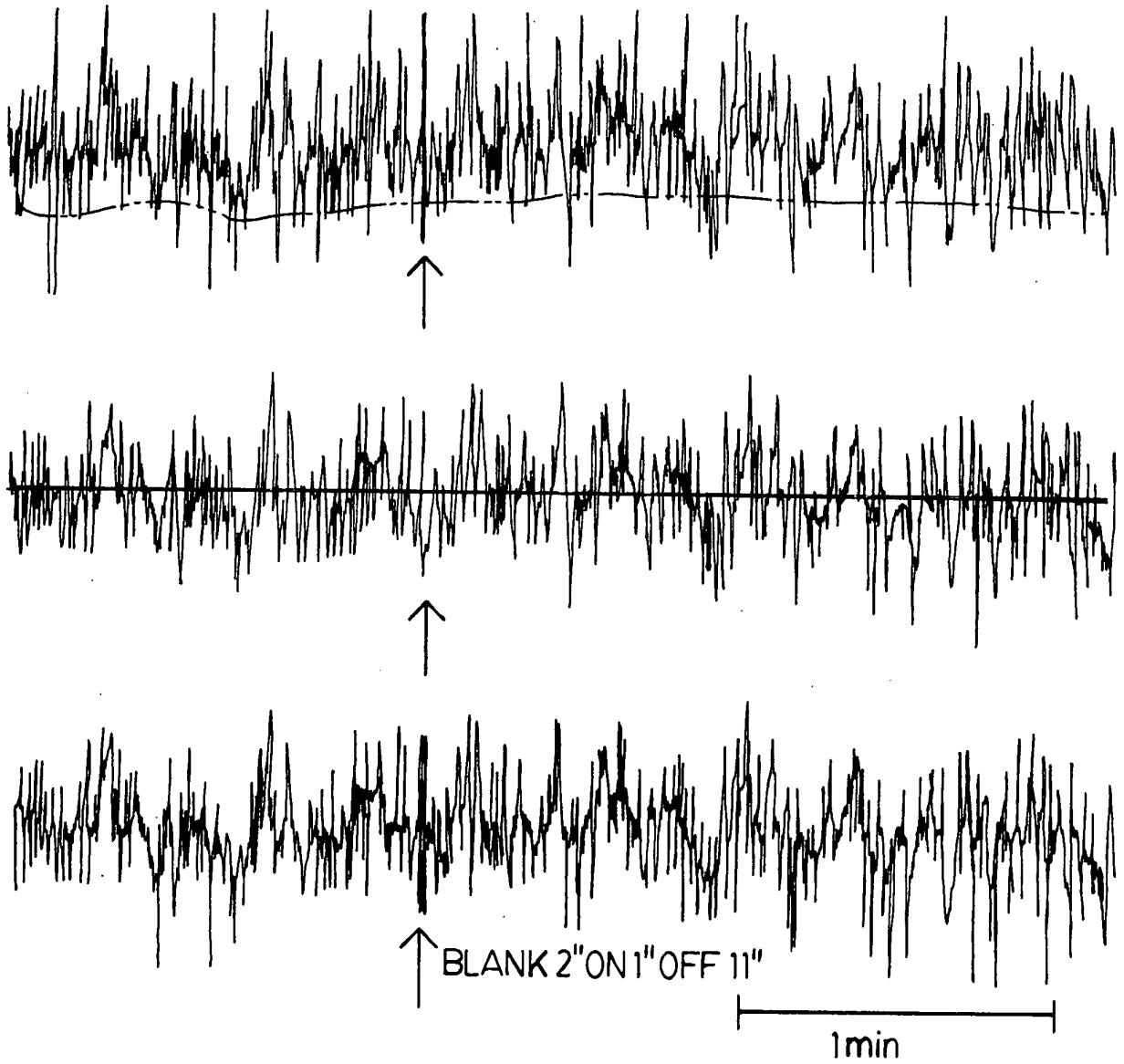


FIG. 36

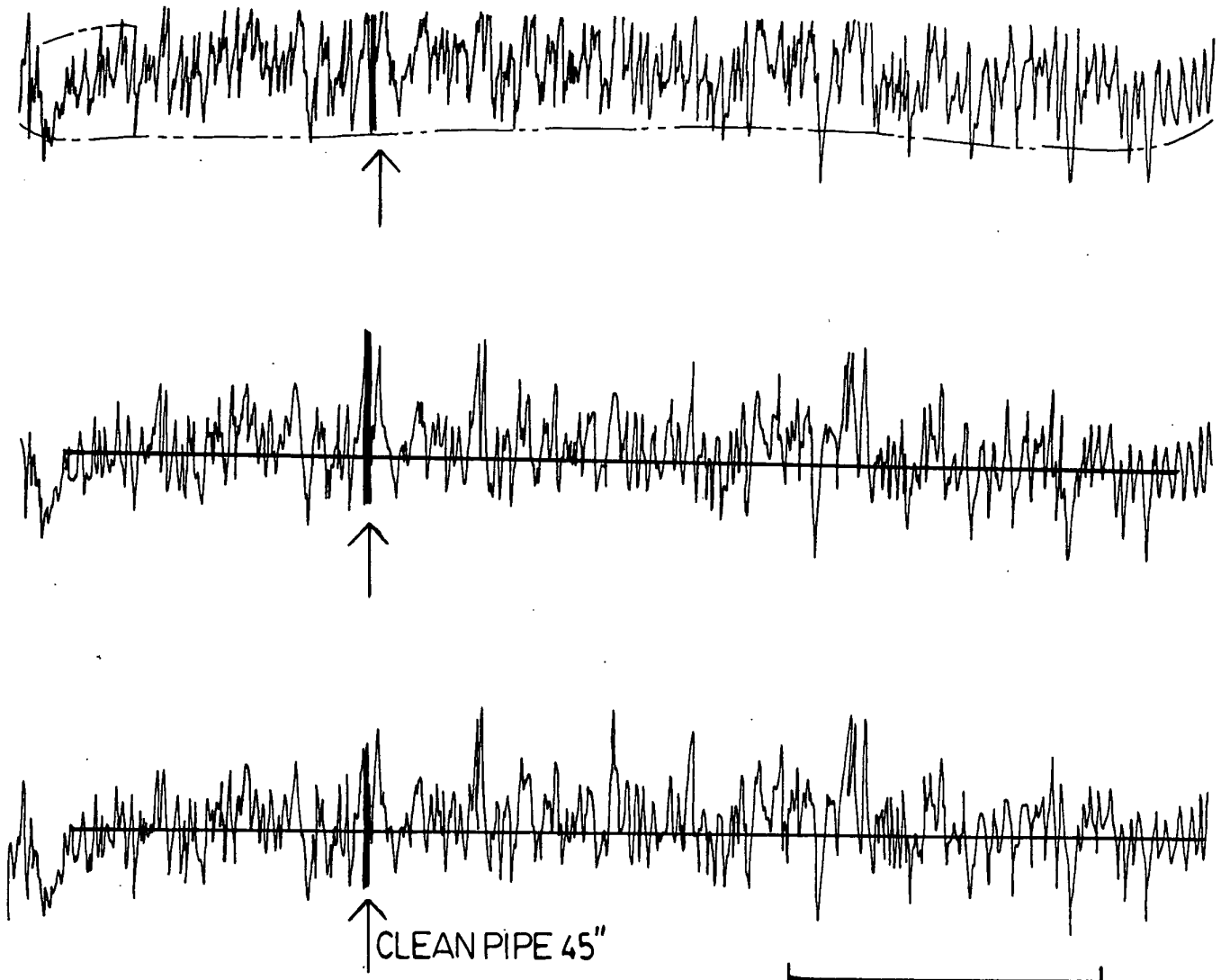


FIG. 37

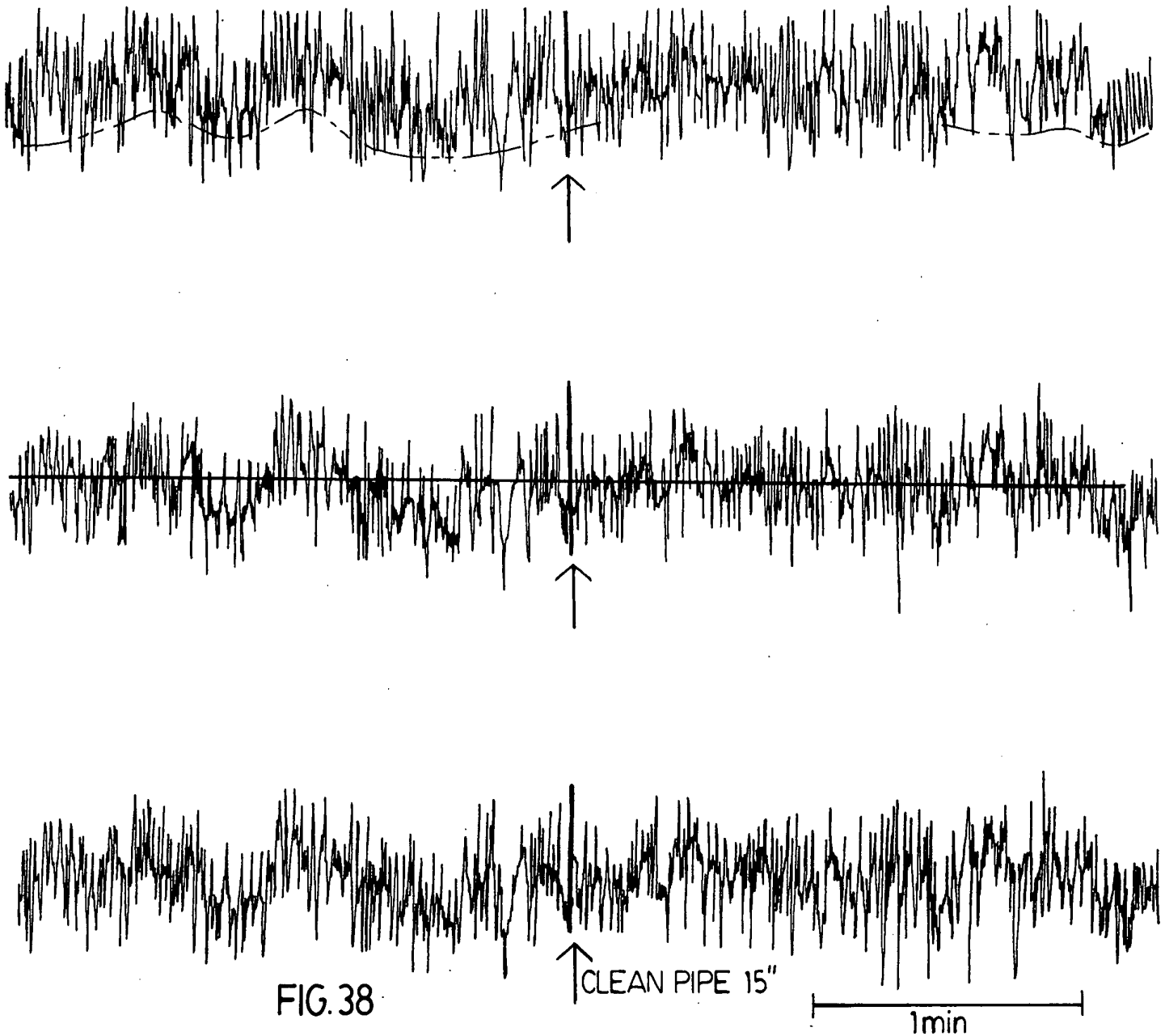


FIG. 38

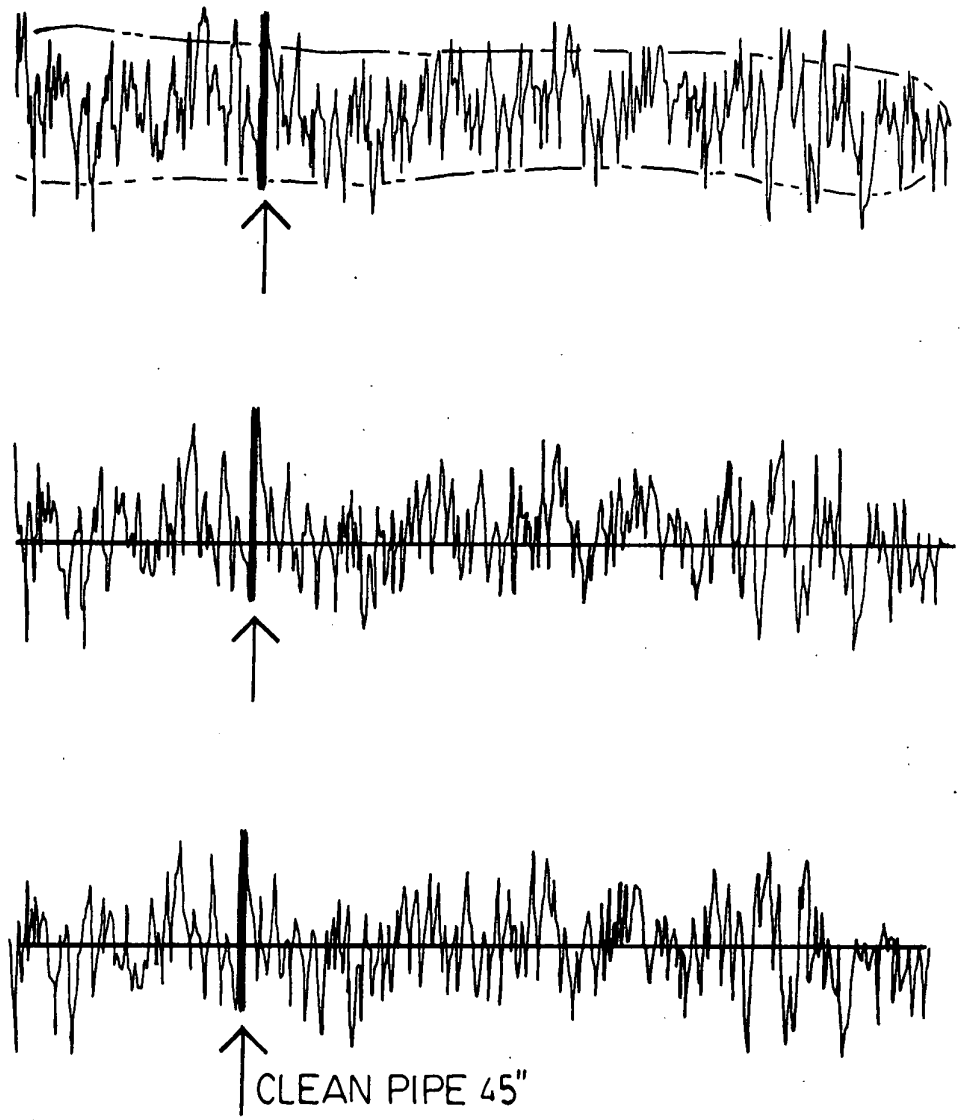


FIG. 39

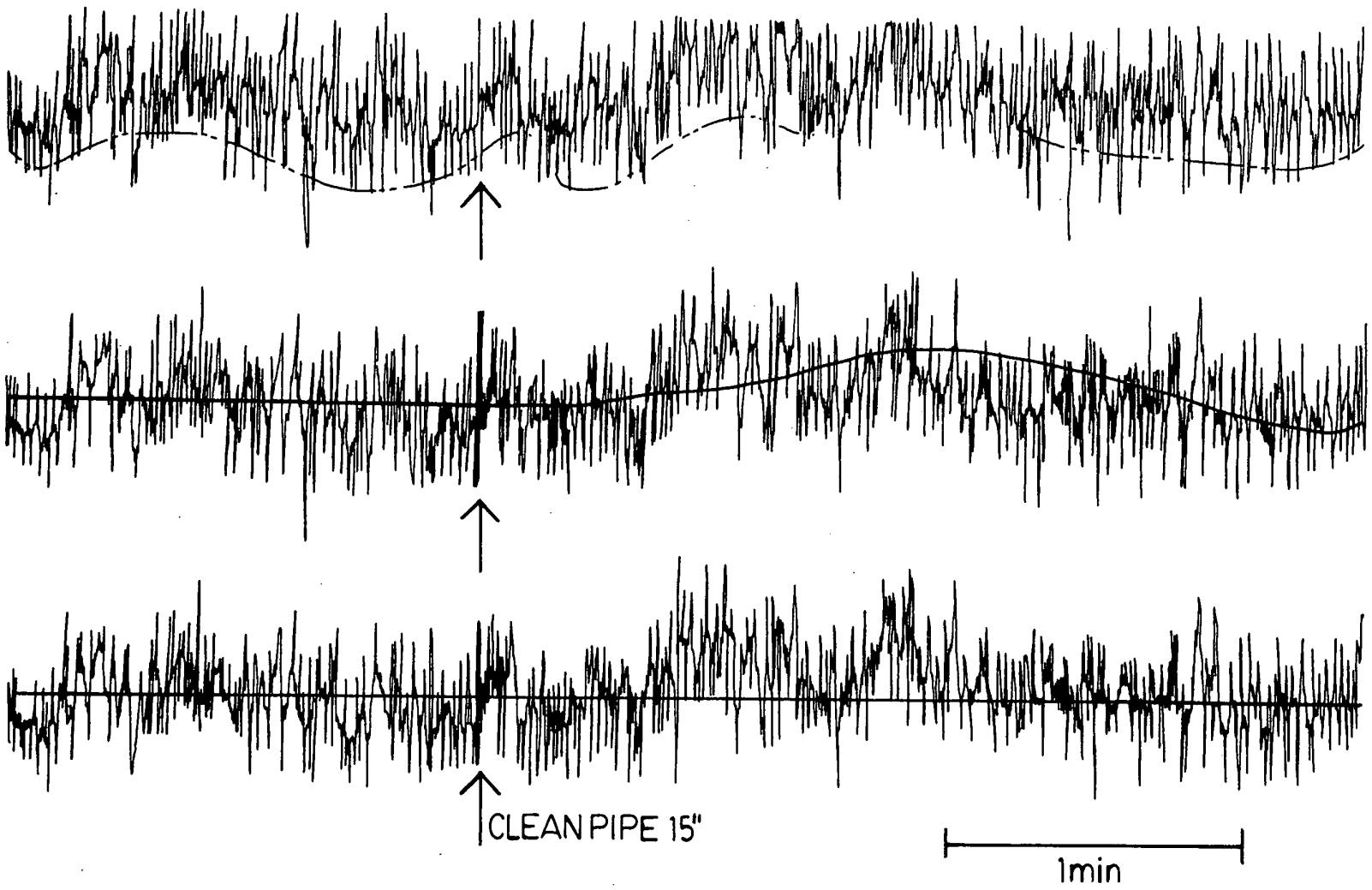


FIG. 40

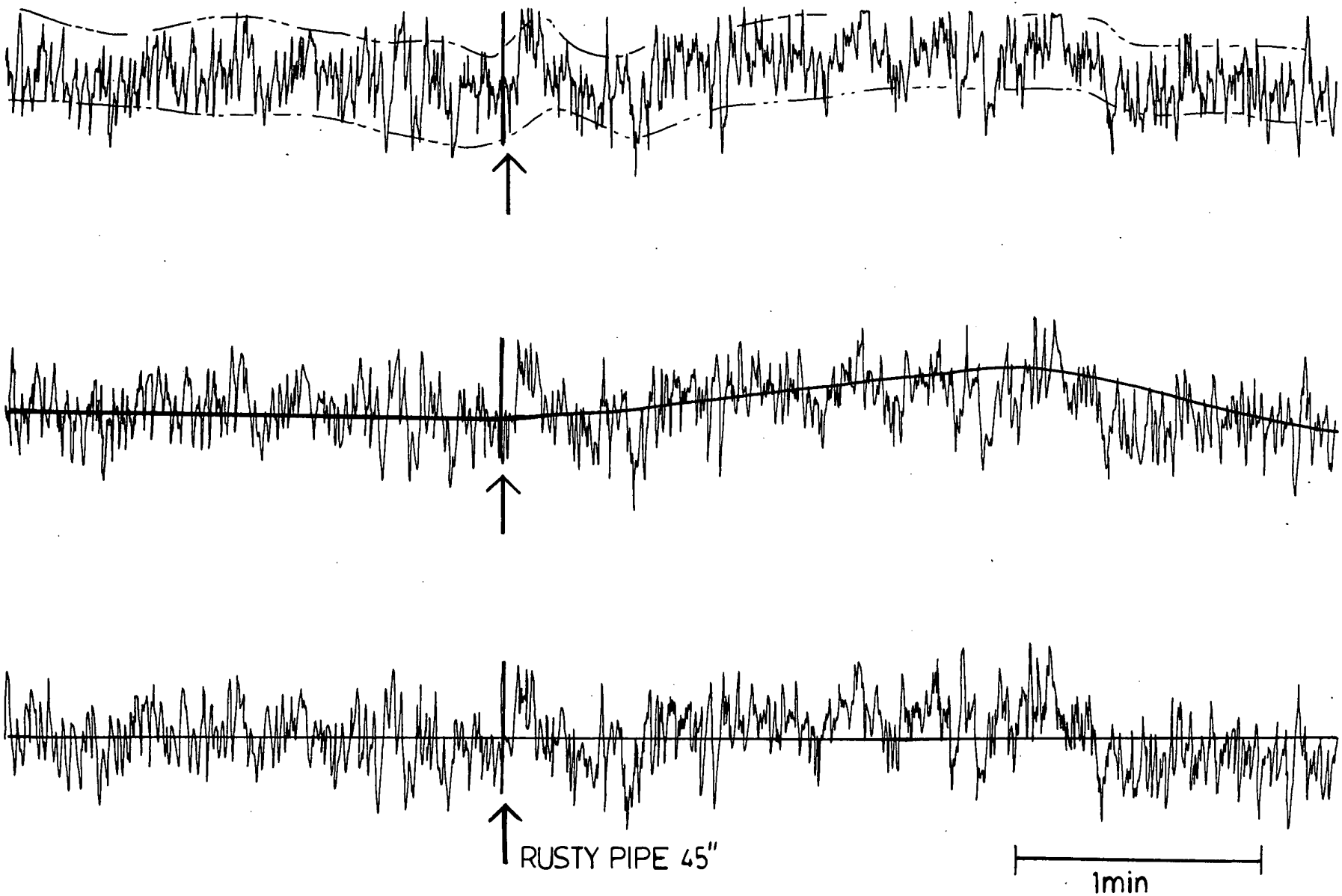


FIG. 41

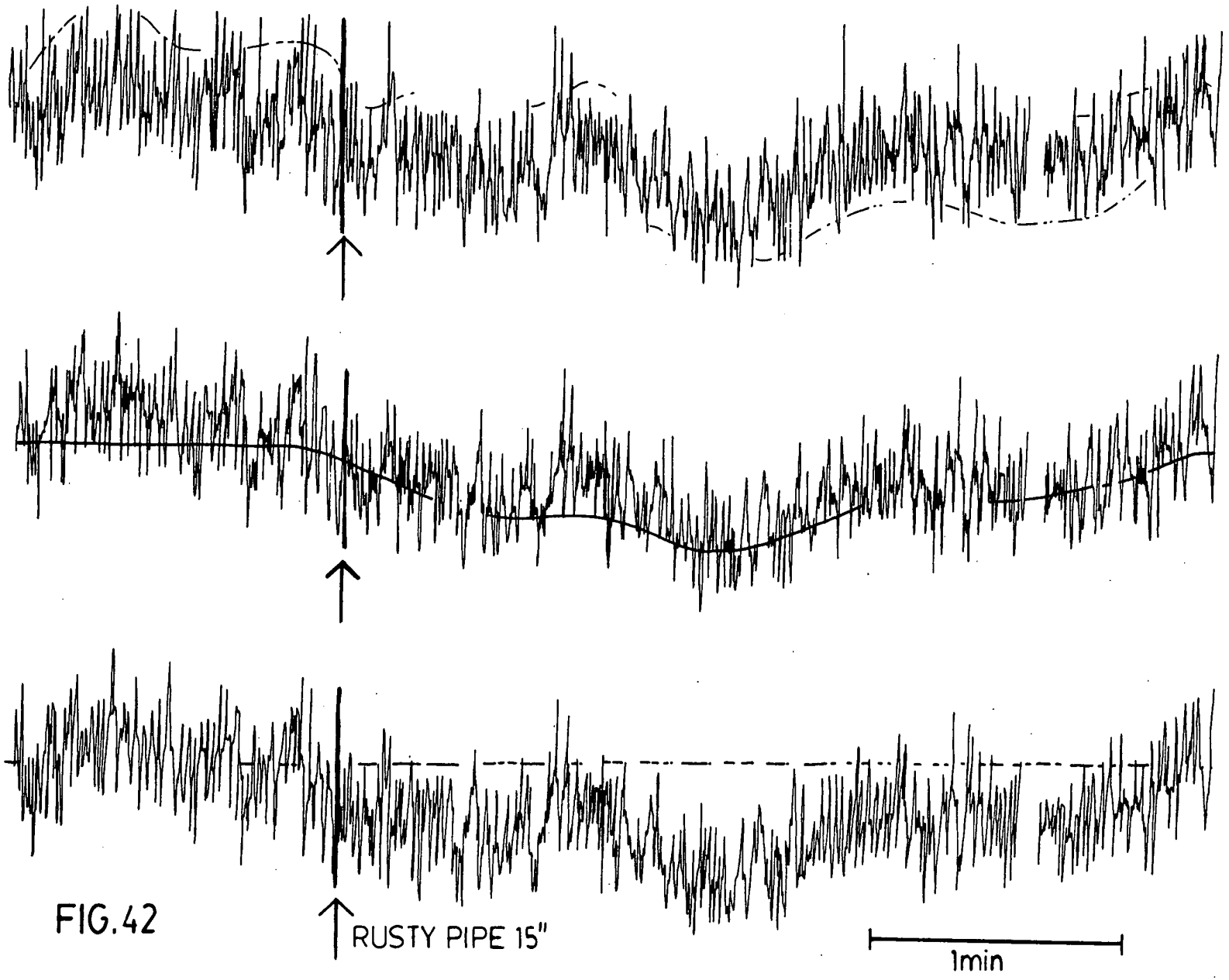


FIG.42

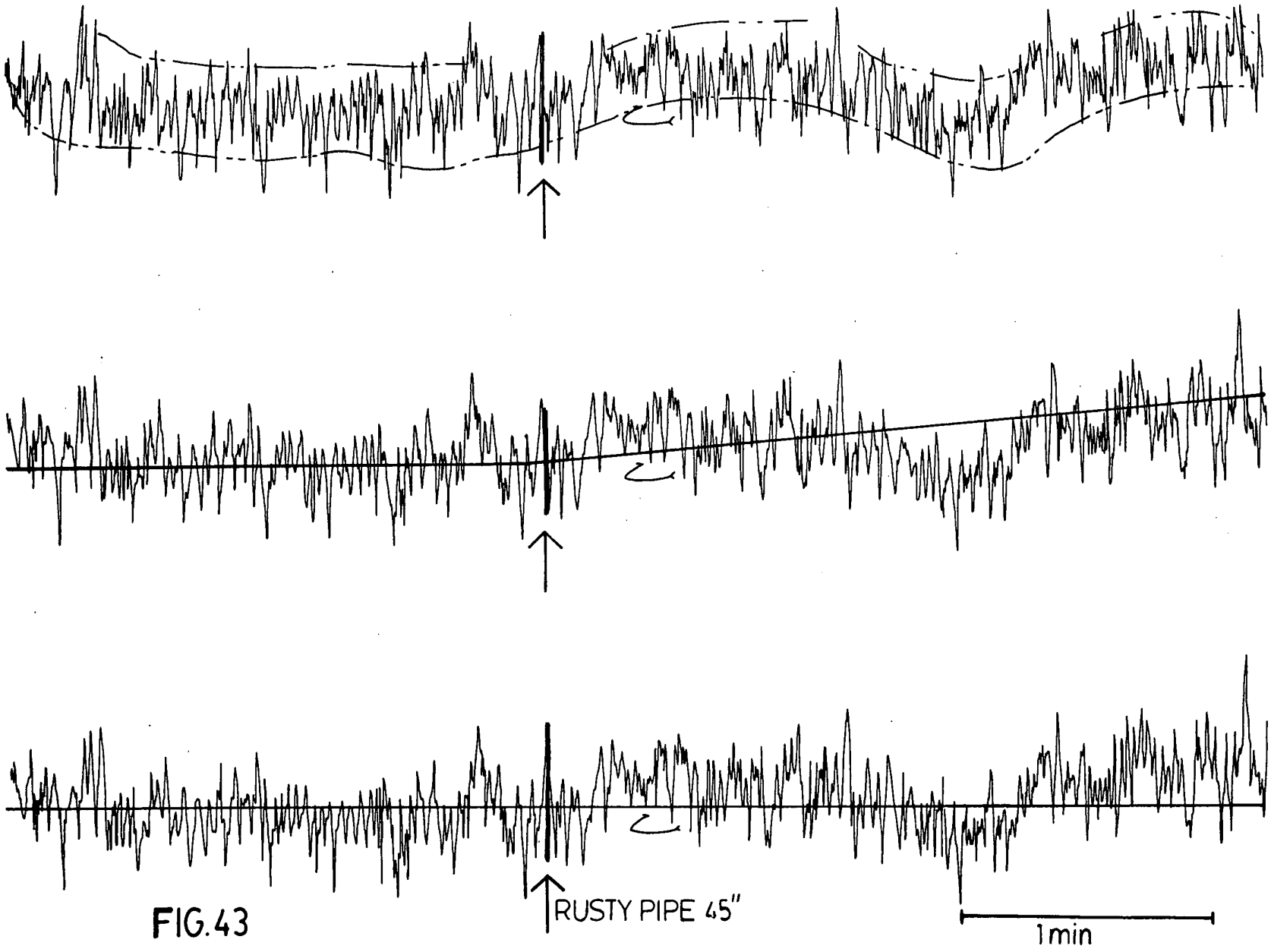


FIG. 43

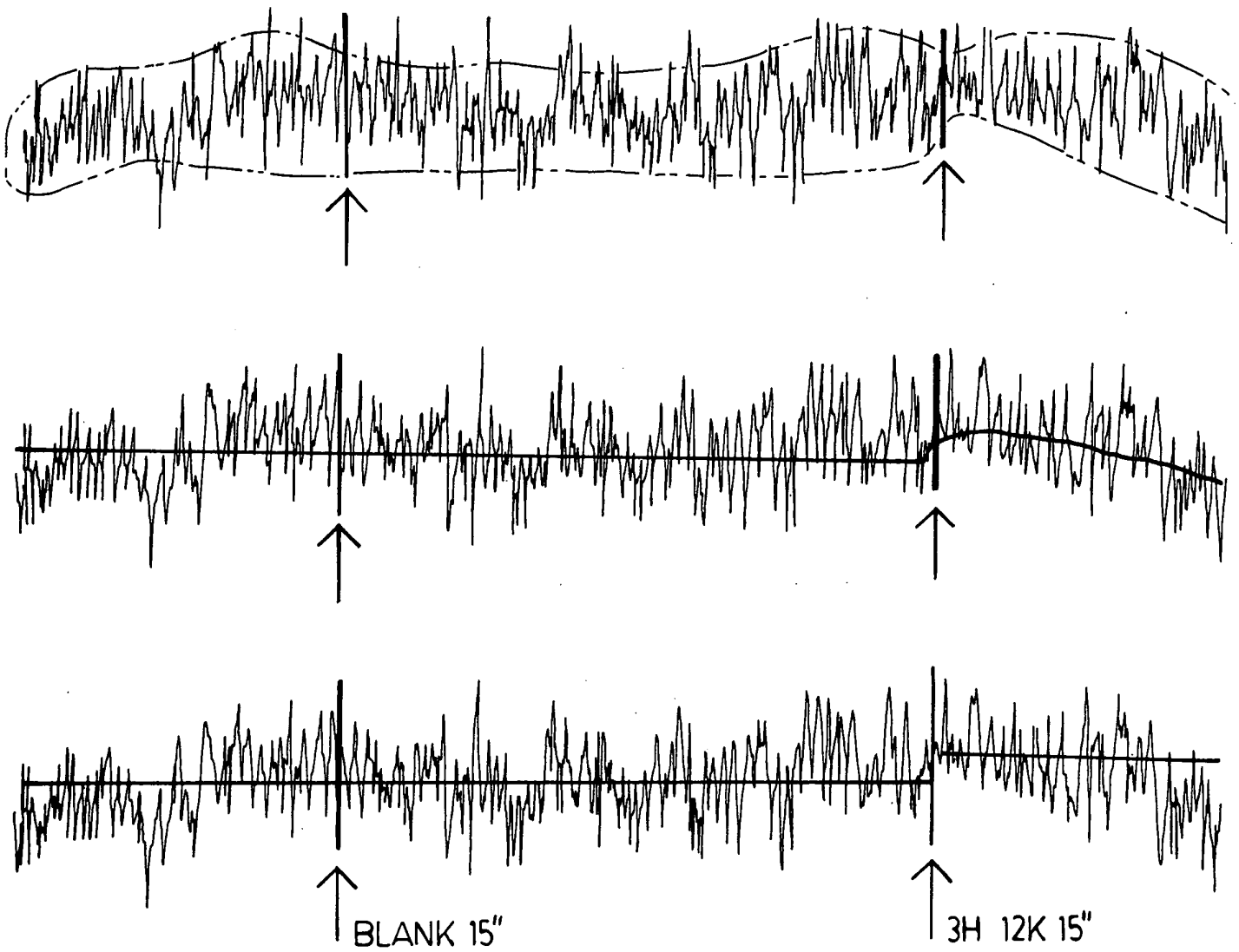


FIG.44

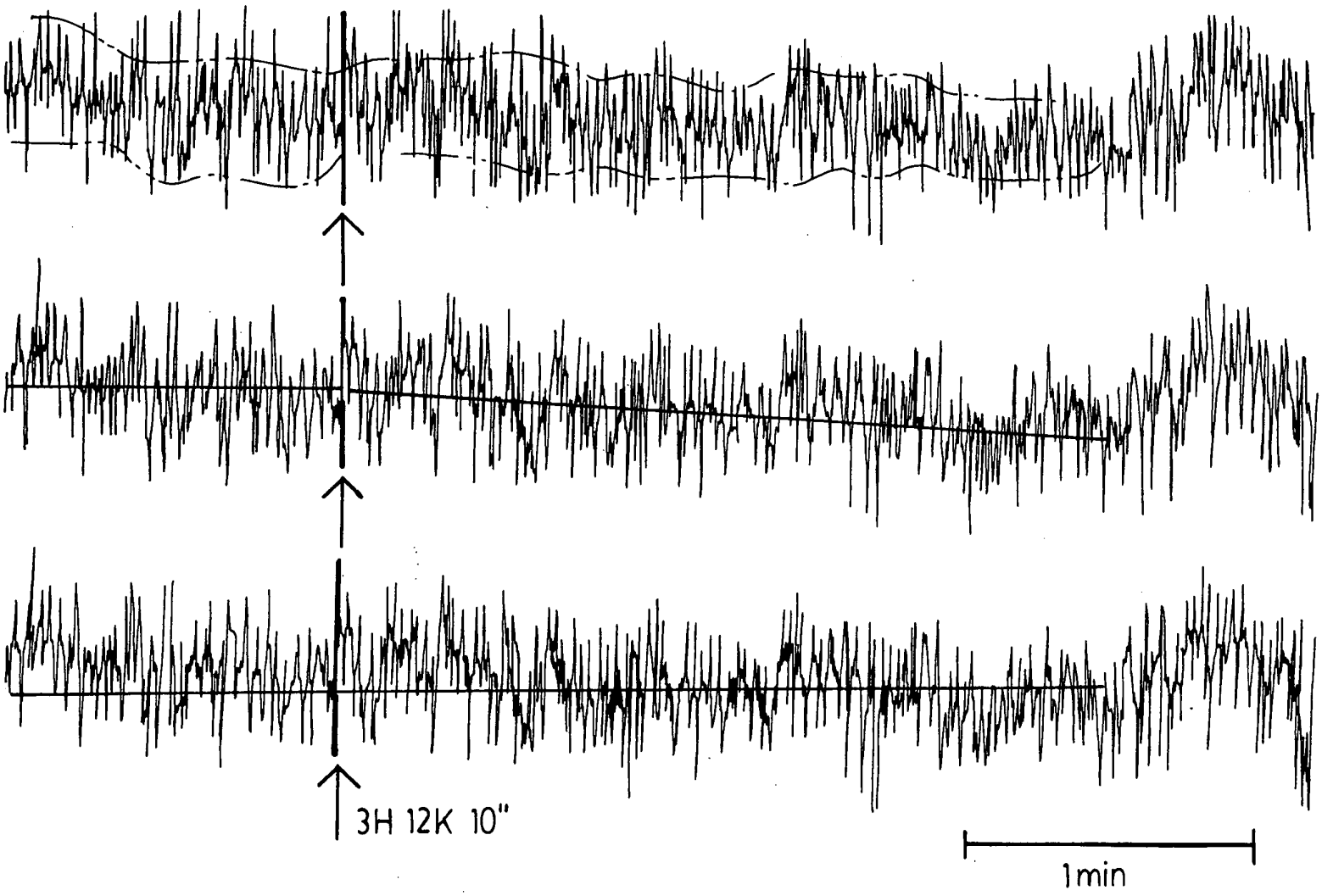


FIG.45

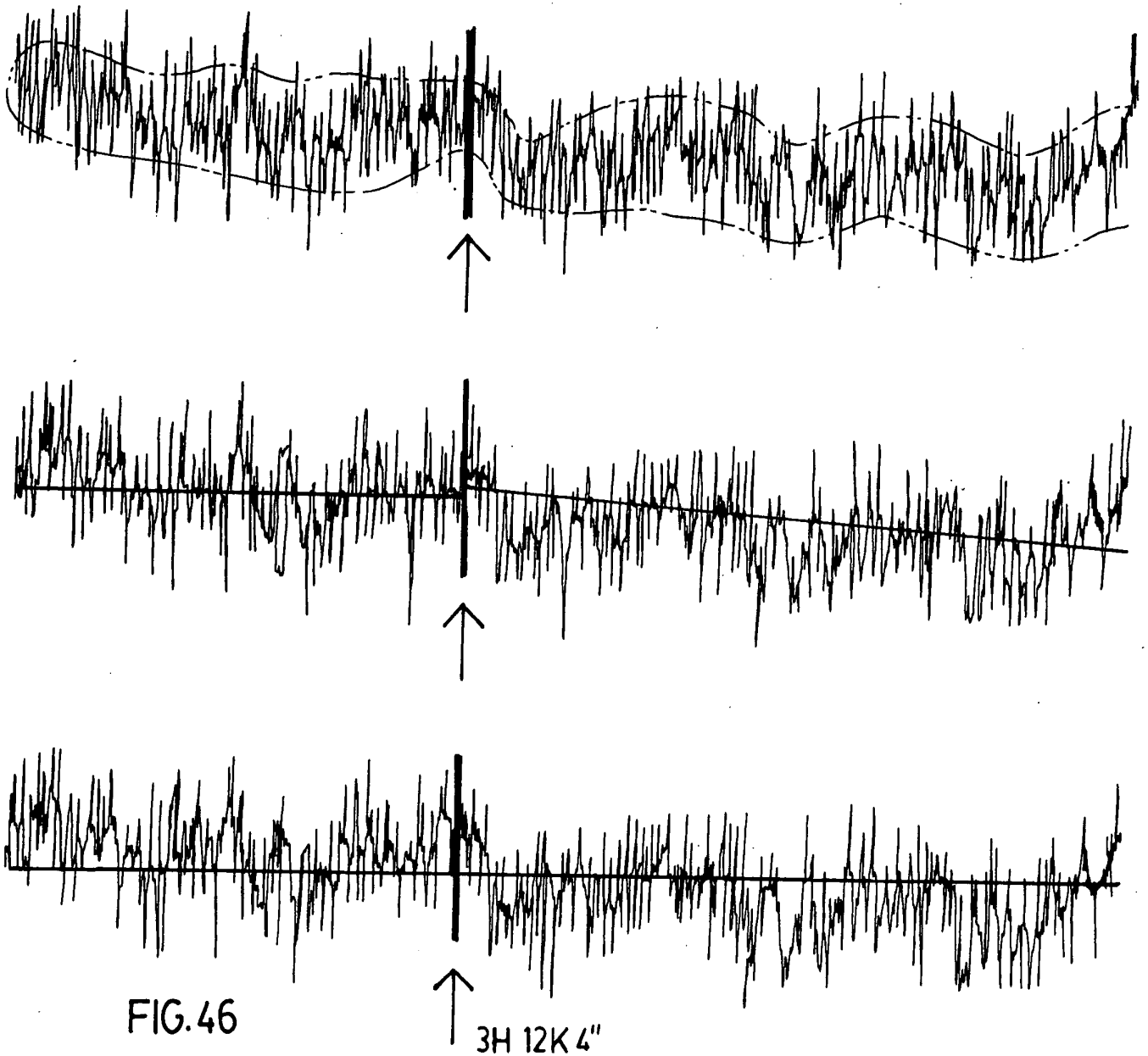


FIG. 46

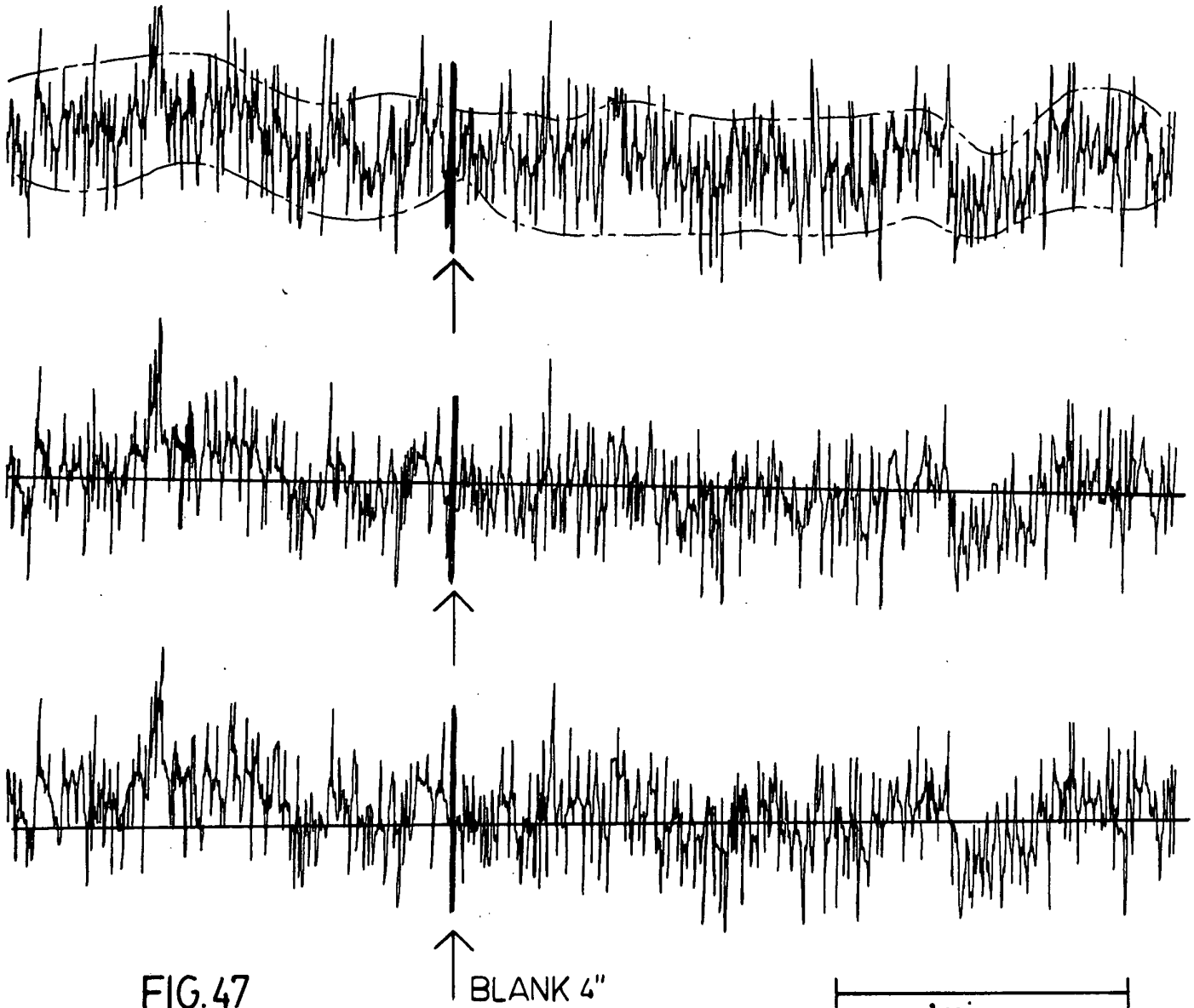


FIG. 47

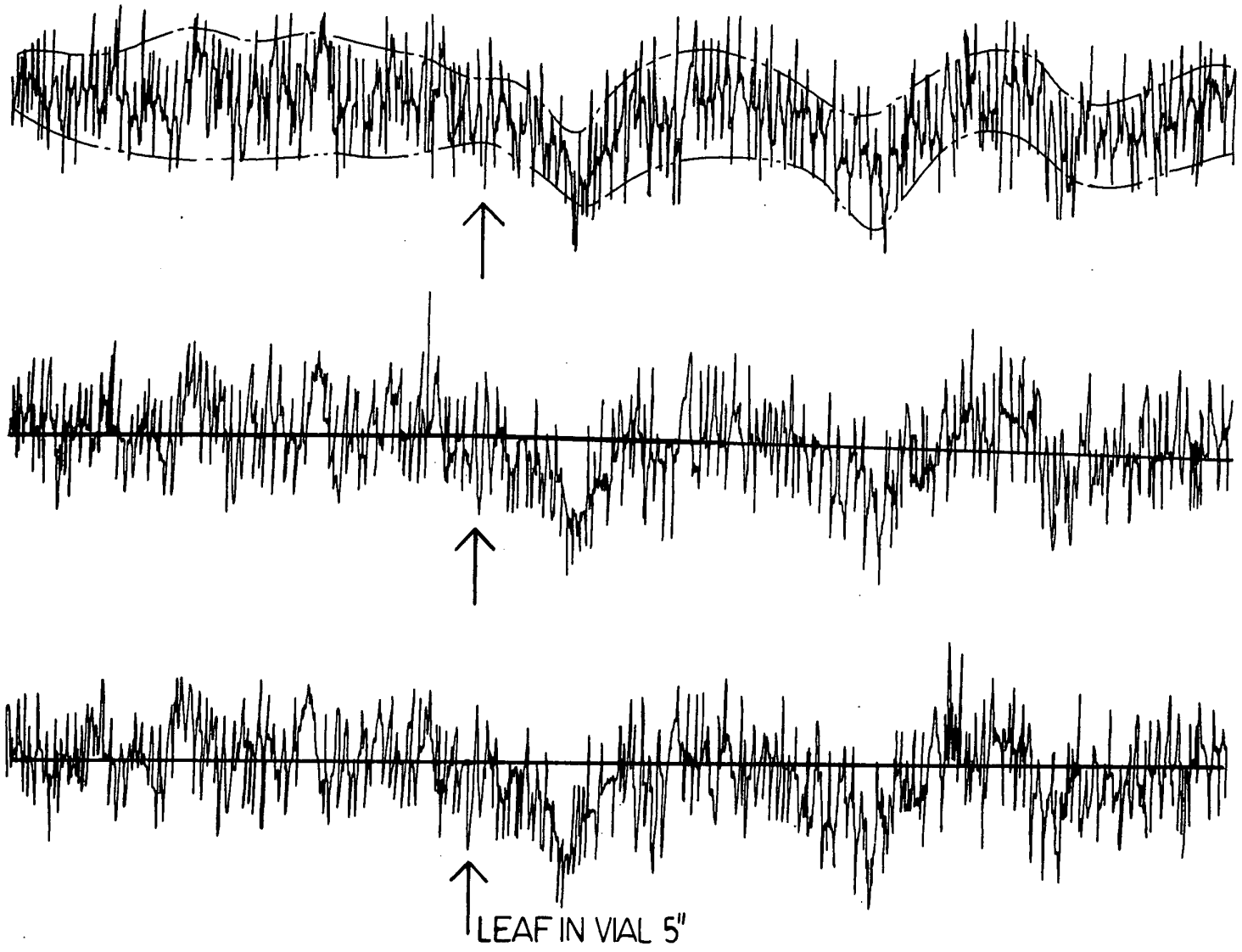


FIG. 48

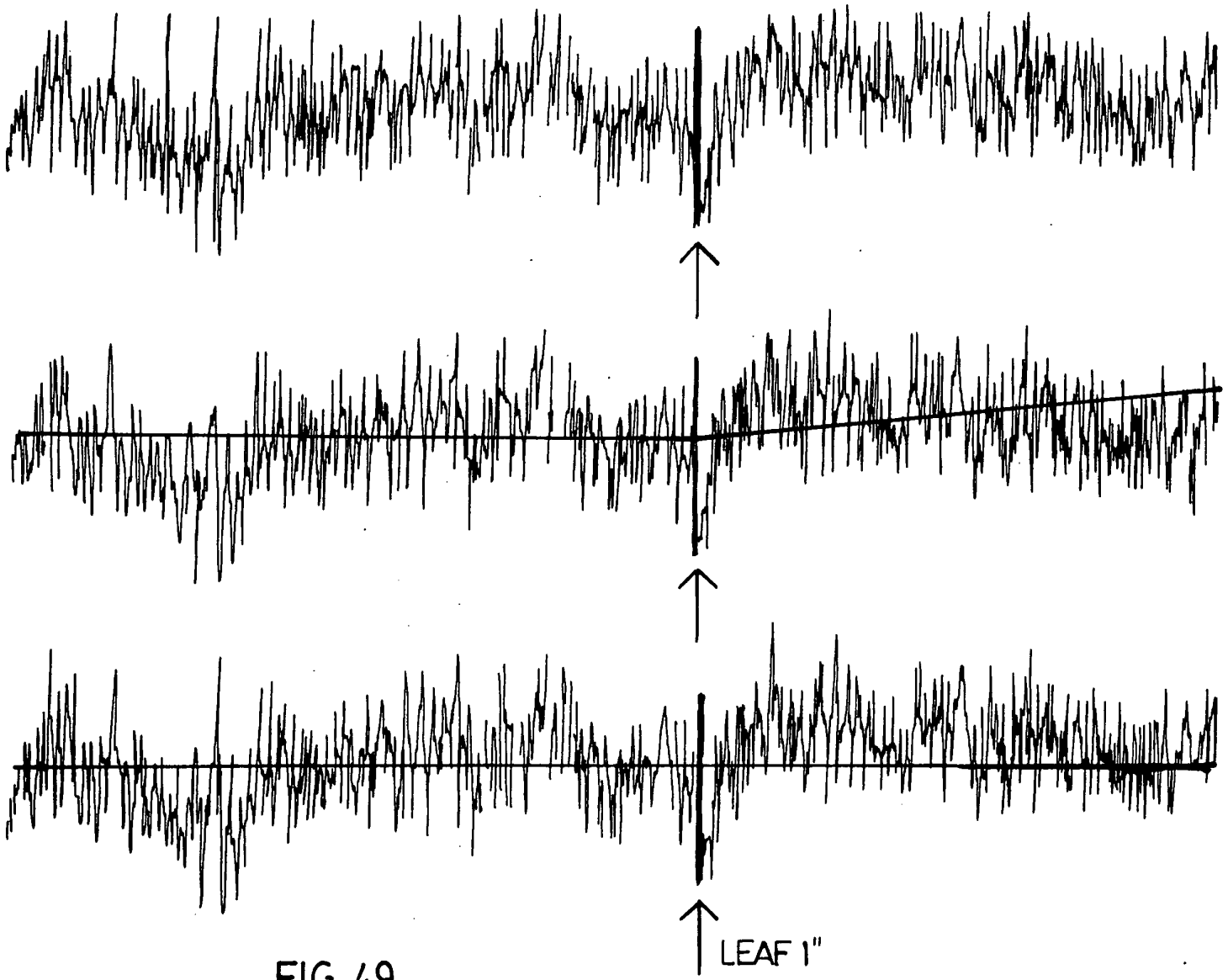


FIG. 49